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The association between interparental conflict and externalizing behaviour problems in adolescence: A systematic review

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Abstract

O impacto do conflito interparental no desenvolvimento infantil tem um longo historial de investigação científica. No entanto, algumas questões sobre a consistência e longevidade desta associação ainda não têm uma resposta clara, particularmente sobre a associação com problemas comportamentais. Esta revisão sistemática de estudos longitudinais prospetivos tem como objetivo principal analisar a associação entre a exposição a conflito interparental na infância em comportamentos externalizantes durante a adolescência. Também visa esclarecer se diferentes formas de conflito têm um impacto diferencial nesta associação. Nesta revisão foram considerados conflitos interparentais ou conjugais, e como *outcome*, foram considerados comportamentos externalizantes, comportamentos antisociais, delinquência e ofensas criminais. Foram incluídos onze estudos. A nossa síntese de resultados sugere uma relação positiva entre o conflito interparental e comportamentos externalizantes durante a adolescência, contudo, não existem estudos suficientes para permitir conclusões mais aprofundadas acerca do impacto do tipo de conflito e do género da criança nesta associação. Estudos futuros devem ter como objetivo aprofundar estas questões de investigação.

Keywords: systematic review, interparental conflict, externalizing behaviour.

Abstract

The impact of interparental conflict on children's adjustment has long been researched. However, some questions are still left unanswered about the consistency and longevity of this association, specifically on behavioural problems. This systematic review of prospective longitudinal studies has, as a main goal, to analyse the association between the exposure to interparental conflict during childhood on adolescent externalizing behaviours. It also aims to clarify whether different forms of conflict have a different influence on this association. Interparental or marital conflict were considered, and, as outcome, externalizing behaviours, antisocial behaviour, delinquency, and offending were included in the search. The final dataset consisted in a pool of eleven studies. The results showed a positive association between IPC and externalizing behaviours, but there were not enough studies to draw conclusions about the impact of different forms of conflict and children's gender on the association. Future research should aim to clarify these findings.

Keywords: systematic review, interparental conflict, externalizing behaviour.

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Introduction

Distress in family relationships is a common occurrence. In Europe, specifically in the United Kingdom, in 2018, it was reported that about twelve per cent of children lived in families where at least one of the parents accounted relationship distress (McConell, 2020); while in the United States, as reported in the American Psychological Association (APA) (2019) it's estimated that, about seventy-three per cent of parent's report feelings of stress when thinking about certain responsibilities. These responsibilities and the need for decision-making regarding them often lead to disagreements and conflict between parents. Buehler et al. (1994) describe interparental conflict, also known as marital conflict, as disagreements between parents about various issues within the family, ranging from financial matters to child-rearing and care decisions. Buehler et al. (1997) distinguish between five different types of interparental conflict styles: overt, covert, cooperative, avoidant, and withdrawn. Overt conflict style is defined as being hostile and often violent. It is characterized by verbal aggression such as yelling and threatening; as well as physical aggression such as hitting and slapping. Therefore, it is common to see interparental conflict associated with intimate partner violence, as they can coexist (Jouriles et al., 2014). On the other hand, covert conflict style is described as passive-aggressive communication and triangulation of the children in the arguments (Buehler et al., 1997).

As mentioned by Westrupp et al. (2015) it is difficult to estimate the prevalence and frequency of interparental conflict within families. Since, usually, only in severe cases where conflicts include physical and extreme emotional abuse are reported to authorities, such as police and child welfare services, there is no clear data regarding less severe conflicts between parents. However, in their 2015 longitudinal study, Westrupp et al., observed that from their sample of Australian families, about nineteen per cent of mothers accounted for being in a relationship characterized by conflict in the four waves of data collection, thus suggesting that interparental conflict is prevalent in Australia and might persist through time.

The evidence suggesting that children's and adolescents' exposure to negative and often violent communications between parents is associated with poor adjustment outcomes such as externalizing and internalizing problems is large (Bradford et al., 2008; Buehler & Gerard, 2002; Harold et al., 2012; Jenkins & Smith, 1991; Theobald et al., 2013). Externalizing problems include aggression, antisocial behaviour, and noncompliance; while internalizing problems refer to anxiety, depression, and inhibited behaviour (Hetherington, 2017). Overt and

hostile interparental conflict is more positively associated with externalizing problems, whereas covert and avoidant conflict styles are frequently correlated with internalizing problems. Within these externalizing problems, interparental conflict is often associated with the development of antisocial behaviour in children and adolescents (Harold et al., 2012).

Interparental conflict and children's maladjustment

The research regarding the association of broken homes, different family configurations and children and adolescents' emotional and behavioural problems is extensive, with researchers focusing especially on the comparison between divorced or separated parents, parents with a disharmonious marriage and parents with a seemingly harmonious marriage (Haas et al., 2004; Jenkins & Smith et al., 1991; Shaw & Emery, 1987; Theobald et al., 2013). As mentioned by Theobald et al. (2013), multiple studies often wonder whether there is a direct association between interparental conflict and children's maladjustment, or if it's just one of multiple factors, including disrupted families, that together lead to the implications in children's behaviour. However, what these studies showed they have in common is the evidence suggesting that children with parents with a disharmonious relationship that includes conflict, whether together or separated, show more signs of maladjustment than children who have parents who are in a relationship without conflict, be it together or separated (Bradford et al., 2008; Haas et al., 2004; Jenkins & Smith, 1991; Shaw & Emery, 1987; Theobald et al., 2013). In other words, whether the parents are together or separated isn't as much of a predictor of children's maladjustment as whether their relationship is characterized by conflict or not. In fact, certain studies propose the idea that children's stress regarding parents' conflict can be reduced when the two separate (Haas et al., 2004). Apart from this, the association between interparental conflict and maladjustment has long been observed. For example, in their longitudinal study Chess et al. (1983) determined that witnessing interparental conflict at three years old was associated with poor adaptation as an adult.

According to Buehler et al. (1994) children's and adolescents' maladjustment can be separated into three different dimensions: externalizing behaviour problems, internalizing behaviour problems, and academic failure. Interparental conflict is defined as disagreements between parents about various issues within family-life, which can include issues directly related to the children (Buehler et al. 1994). Several authors have formulated the idea that what influences maladjustment in children when exposed to interparental conflict isn't the conflict itself, but the characteristics of the conflict (Bradford et al., 2008; Brock & Kochanska, 2016; Buehler et al., 1998; Hetherington, 2017). These elements are frequency, severity, chronicity,

content, level of resolution and mode of expression (Bradford et al., 2008; Buehler et al., 1997), and when taken into consideration they can be divided into five distinct conflict styles. As mentioned previously, according to Buehler et al. (1997), these are: covert, overt, cooperative, avoidant, and withdrawn. Overt style can be characterized as the most hostile; covert as passive-aggressive and sometimes triangulating - triangulation of the child in an argument refers to parents, not only exposing the arguments and their contents to the child, but also asking for their opinions on them, and therefore, directly and indirectly, asking them to side with one of the parties (Bradford et al., 2008). Cooperative style is defined as interactive and motivated by children's needs; avoidant and withdrawn as being similar, but different in the way that in the avoidant style, the parents usually walk out of the conflict instead of engaging in it and in withdrawn the parents engage in the conflict but in an apathic and emotionally withdrawn way (Buehler et al., 1997).

However, other authors have proposed different constructs when dividing conflict styles. For example, Cummings (1998), an important author in the field, observed that conflict styles can be differentiated between destructive and constructive when taking certain characteristics into account. These characteristics are the child's response to the conflict and its impact on children's coping mechanisms and behaviour. Therefore, destructive interparental conflict style refers to physical and verbal aggression, violence directed towards objects during the conflict, withdrawal, and threats regarding separation, whereas constructive interparental conflict can be defined as successful conflict resolution as well as explanations towards the children as to how the conflict came to an end, or optimistic reasoning when the conflict is not fully resolved (Cummings, 1998).

More recently, Hetherington (2017) and Brock and Kochanska (2016) also distinguish between destructive conflict styles and constructive conflict styles; destructive style refers to hostility, contempt, coercion, and abuse, as well as unresolved conflict and negative emotions. On the other hand, constructive conflict is described as adaptive and resolved with a mutual effort from both parties (Brock & Kochanska 2016; Hetherington, 2017). According to Brock and Kochanska (2016), these elements all play a part in the emotional consequences of the conflict, in the sense that conflicts and disagreements between the couple are unavoidable. Therefore, they might be positive by solving an issue within the family and so reducing tension that could have been built up until that point and bringing closeness within the family. However, if the conflict is not properly solved or is characterized by negative emotions, it may result in

even higher levels of tension and negativity, in turn, leading to an overall negative family environment (Brock & Kochanska, 2016).

Similarly, to Buehler et al. (1997), Hetherington (2017) discriminates between three different types of destructive conflict style: hostile-confrontational, hostile-withdrawn and conflict-avoidant. Hetherington (2017) observed that, when studying the prevalence of different types of conflict styles in their sample of couples, hostile-confrontational conflict pattern was present in 34 percent of wives and 20 percent of husbands and was characterized by negative emotions, belittling (such as sarcasm, verbal insults, and humiliation) and unresolved conflict. Similarly, hostile-withdrawn style was prevalent in both men and women (38 percent and 20 percent, respectively) and was equally defined by its negative nature followed by withdrawing from the argument and from taking accountability (Hetherington, 2017). Lastly, avoidant conflict style was less prevalent (10 percent of wives and 12 percent of husbands) and was defined by infrequent conflict where withdrawing was common. On the other hand, the only constructive style observed was engaged, which was defined by positive emotions, compromise and resolved conflict (Hetherington, 2017).

Taking these two definitions into account and comparing them, we can group them as two main constructs of conflict styles: destructive and constructive. Destructive conflict styles would include Buehler et al.'s (1997) construct of overt, covert, withdrawn and avoidant conflict styles and Hetherington's (2017) hostile-confrontational, hostile-withdrawn, and conflict-avoidant conflict styles. As for constructive conflict styles, these would include cooperative conflict style (Buehler et al., 1997) and engaged conflict style (Hetherington, 2017). Out of all these destructive styles however, overt and covert, or hostile-confrontational and hostile-withdrawn are the most studied in the field, and the ones who have shown more evidence of being associated with children's and youth's maladjustment.

Overt and covert interparental conflict style and externalizing and internalizing problems in children and adolescents

Several studies have clearly shown the association between exposure to interparental conflict and behavioural problems in children and adolescents. Older studies, such as Buehler et al. (1998), assessed that interparental conflict influences youth and puts them at a higher risk of developing both internalizing and externalizing problems. More recently, in their 2007 study, Pauli-Pott and Beckmann found that high levels of interparental conflict were associated with not only negative emotionality in the child but also negative reactivity and the development of

behaviour problems, leading the authors to the conclusion that exposure to frequent conflict can influence children's behaviour problems by enhancing their stress and negative emotionality levels (Pauli-Pott & Beckmann, 2007). To add to this evidence, Brock and Kochanska (2016) found that exposure to interparental conflict during childhood increases the risk for internalizing problems 8 years after the fact, suggesting that exposure to interparental conflict has a longitudinal and persistent effect on behavioural problems.

Even though the association between exposure to interparental conflict and behaviour problems in children and adolescents is relatively consensual, the data regarding the association between specific types of conflict styles and internalizing and externalizing problems is unclear. The bigger consensus when analysing studies made on the association between different conflict styles and internalizing and externalizing problems in children and adolescents is that overt conflict style is more associated with externalizing problems, such as bullying, antisocial behaviour and cruelty, whereas covert conflict style is greatly related to internalizing problems, such as depression and anxiety (Bradford et al., 2008; Buehler et al, 1998; Gerard et al., 2006; Jenkins and Smith, 1991).

In their study where direct and indirect associations between overt and covert interparental conflict styles were analysed, Bradford et al. (2008) observed that from their young participants the ones who reported covert conflict style between their parents were more prone to display depression and antisocial behaviour. According to Kazdin (1992, as cited in Braga et al., 2017) antisocial behaviour can be defined as behaviours that violate norms, are condemned by society, and that include a spectrum of behaviours, such as lying, stealing, aggressive, externalizing, and disruptive behaviour. Bradford et al. (2008) explain this association through the idea that covert conflict style is one that persistently involves the children in the argument by triangulating them. According to the authors, this presents a threat of boundary intrusion and heightens the levels of emotional stress and self-blame on the child. Therefore, the authors propose the idea that the covert conflict style can be more harmful to children than overt conflict style, by directly making them a participant in the conflict and putting them in the middle of a high stress-level situation.

These findings correlate to those found earlier in 1998 by Buehler et al., who observed that covert conflict style was associated with internalizing problems, being that triangulation was also a key factor in explaining this association not only in couples who lived together but also in those who were separated (Bradford et al., 2008), once again corroborating the theory

that it's not the family configuration that determines maladjustment in the child, but the type of emotional environment that exists, including whether the parents are engaged in destructive conflicts.

Regarding overt conflict style, Jenkins and Smith (1991), when studying the effects of divorce and family disruption on children's behaviour, found that overt interparental conflict was more associated with externalizing problems than internalizing problems; however, the authors found no correlation between covert conflict style and behaviour problems, drawing the conclusion that children only demonstrate and develop behaviour problems when there is conflict, not when there is distance in the couple (Jenkins & Smith, 1991). Corroborating these findings, Buehler et al. (1998) noted that overt conflict style was more related to externalizing problems than internalizing problems; however, unlike Jenkins and Smith (1991), the authors did find a positive association between covert conflict style and behavioural problems, more specifically internalizing behaviour problems.

More recently, Gerard et al. (2006) also found that conflict between parents that is defined by hostility and aggression leads to externalizing problems in children that are reflected by actions such as bullying, cruelty and noncompliance. The authors explain this phenomenon through the spillover theory that will be explained in greater detail later. Similarly, Bradford et al. (2008), also found that through modelling and observation of their parents' conflict styles, children whose parents adopt a hostile style will more likely develop externalizing behaviour problems. On the other hand, Hetherington (2017) observed that adolescents whose parents had a hostile-confrontational style (overt conflict style) had similar adjustment as those whose parents demonstrated hostile-withdrawn conflict style (covert conflict style). These similarities included high levels of externalizing problems and low levels of social responsibility and cognitive agency (Hetherington, 2017). However, the author found, corroborating previous findings, that the two showed a difference, in the way that adolescents exposed to hostile-confrontational style were less prevalent in internalizing problems, than those who were exposed to hostile-withdrawn conflict. The prior group of adolescents showed anger, noncompliance, anxiety, depression, and insecurity. Hetherington (2017) also attempted to study the impact in adolescents' adjustment when parents demonstrated distinct conflict styles. However, the author found that in most couples, conflict styles were the same or similar, but when both parents showed a hostile conflict style the negative effects on the adolescent were graver.

It is possible then to note the discrepant findings. While most studies showed the evidence exclusively linking covert conflict style to internalizing problems, Bradford et al. (2008) found that this conflict style was associated with antisocial behaviour which, when considering its definition, is included in the range of externalizing behaviours. Furthermore, in previous studies, Jenkins and Smith (1991) concluded that there was no correlation between a more distant parent relationship and children's behaviour problems. Also adding to the doubts of the correlation, even though Buehler et al. (1998) found associations between specific conflict styles and behaviour problems, these were only partially supported.

When considering the years in which these studies were published, we can question whether throughout the years the circumstances regarding interparental conflict and children's adjustment might have changed. Perhaps conceptions of what characterizes a destructive conflict style and ideas of family changed and, therefore, also implicated the results found in studies. For example, older studies focused especially on family configurations, hypothesising that divorce could have a greater impact on children's maladjustment and behaviour problems than conflict within the family, however, this was not corroborated in the findings. Therefore, more recent studies mainly focus on conflict and its nuances and distinct styles. Furthermore, a few studies, such as Jenkins and Smith (1991), did not distinguish between different types of conflict styles, causing more uncertainty on the associations between conflict and specific behaviour problems. Also, it can be observed that destructive conflict styles, especially overt conflict style, are defined by acts that can be considered abuse (Cummings, 1998), such as physical, verbal, and emotional aggression, blurring the lines between mere conflict and domestic violence (Jouriles et al., 2014), which is considered a crime in almost all the countries.

The Spillover Theory

When looking at the explanations of the association between interparental conflict and children and adolescents' maladjustment, it is often found the use of the spillover theory. Spillover is a construct that refers to the transposition of mood, affect and behaviour from one setting or person to another (Erel & Burman, 1995). When we specify this idea into the family system and the conflict between parents, it implies that interparental conflict, by transposing negative emotions and behaviour to the parent-child relationship, leads to ineffective parenting practices, which in turn has a negative effect on children's adjustment and behaviour (Erel & Burman, 1995; Hetherington, 2017). According to Erel & Burman (1995) there are four main mechanisms where the quality of the marriage might spill onto the parent-child dyad. The first one is a process named "detouring" which refers to negative feelings that the marital couple

might have on their relationship, but can't express to each other, and so, these negative feelings are put on or explained as referring to the child. The second mechanism would be explained by the social learning theory that will be addressed later. The third mechanism can be referred to as a socialization process, in which the conflict may shape parenting practices and make them harsher and possibly aggressive. The last mechanism refers to a sociological perspective that claims that when under stress, parents are less available to the child and their needs (Erel & Burman, 1995). As mentioned by Hetherington (2017), this theory implies that the parental dyad is the backbone and the supporting base of the family system, therefore, any "damage" made on this dyad, directly affects the other relationships within the system. These relationships then, include not only the parent-child dyad, but also sibling relationships, in case of a multiple-child family (Hetherington, 2017).

When talking about emotions that could be transferred from an overt conflict style to parenting practices, anger and tension are some of the primary negative emotions that are mentioned (Gerard et al., 2006). As for behaviours that occur in the interparental conflict and can be transferred into the parent-child relationship, they are those who can be considered hostile and, possibly, aggressive. In this way, the parent-child relationship would also be characterized by negative emotions and the parenting practices used could take a more aggressive turn. This would be reflected through the parents using harsh techniques such as punitive disciplines (Gerard et al., 2006) that can include physical acts, like slapping and hitting. On the other hand, in covert interparental conflict styles, emotions such as apathy and behaviours such as disengagement (Gerard et al., 2006) and withdrawal could be transferred, through spillover, to the parent-child dyad and to parenting practices, reflected on a lack of response to the child's needs.

This theory was initially proposed by Erel & Burman (1995) and has, throughout the years, been tested and confirmed through several studies. Buehler and Gerard (2002), when testing the idea that interparental conflict influences parenting practices, found that conflict was associated with more frequent use of harsh discipline as well as lower levels of involvement in the child and their needs and more conflict between the parents and their adolescent children. This, in turn, was found to be related to maladjustment in children and youths (Buehler & Gerard, 2002). Therefore, the authors concluded that hostile behaviour in parents covaries with overall maladjustment in their children (Buehler & Gerard, 2002).

Gerard et al. (2006) also studied this phenomenon and found evidence that not only was there a spillover from interparental conflict to parenting practices through harsh discipline, but this was also stable through time. However, the authors found that the impact was only limited to externalizing problems in children and not internalizing problems (Gerard et al., 2006). In this way, according to the authors, children might view their parents' conflict styles, such as dominance and intimidation, as models and the appropriate way to handle social problems, for example in school, and these would be mirrored through acts such as bullying, cruelty and disobedience (Gerard et al., 2006). Bradford et al. (2008), similarly, found support for this idea, claiming that children model their parents' hostile conflict styles in their social contexts, implying that social learning processes also are a part of the spillover theory.

Social Learning Theory

Social learning theory tells us that the way individuals act in certain situations reflects what they learned by observing their models, who are, primarily, their parents during childhood (Bandura, 1973, as cited in Theobald et al., 2013). In regard to the application of social learning to antisocial behaviour, Akers and Jensen (2009) refer that this social learning process is defined by four major concepts that act on an individual's learning history, on the situation where the opportunity to act on occurs, as well as the structural social context in which the individual is set in. These four major concepts are: differential association, differential reinforcement, definitions, and imitation. Differential association refers to the direct and indirect association of the individual with certain social groups that engage in or condone a certain behaviour or mindset, being that the primary social group - the family -, is the one who plays a bigger role in influencing the individual. Definitions are an individual's own beliefs and thoughts about a certain behaviour - these can include those learned through social groups and contexts. Differential reinforcement refers to the consequences of a certain act, and imitation is the participation in a certain act after direct or indirect observation. The imitation of the act is dependent on the model's characteristics, the type of observed behaviour as well as its consequences (Akers & Jensen, 2009).

Therefore, in the context of interparental conflict, children are more prone to mimic aggressive acts in their own social context after observing it in their primary social group, their family (differential association). Their thoughts on violence, aggression and conflict strategies might be shaped from what they hear and observe first-hand at home (definitions) and, at last, children, when combining these factors, beliefs, and the opportunity to act on these beliefs, might imitate these acts at school, for example.

Emotional Security Theory

Another theory that might explain the association between interparental conflict and children and adolescents' maladjustment is the emotional security theory. Emotional security includes a range of children's emotional, cognitive and behavioural responses towards their parents, their relationship and, therefore, their conflicts (Brock & Kochanska, 2016). According to Cummings et al. (2012), a child's emotional security about their family and parents' relationship relates to their sense of protection, safety and security and is important in their successful emotional and social regulation.

It is, then, important for the child to keep this security, investing in it (Brock & Kochanska, 2016). When the child observes the parents engaging in a conflict that is characterized by anger and hostility, their emotional security is undermined (Brock & Kochanska, 2016; Hetherington, 2017) by threatening not only their safety, but also the stability of the family system and their relationship with their parents (Davies & Cummings, 1994). This is aggravated when the conflict is about the child, and especially if there is triangulation of the child, as it makes them feel caught in the middle (Hetherington, 2017), and therefore might heighten their feelings of guilt and self-blame (Bradford et al., 2008). By having this motivation and necessity to keep their emotional security, children often feel the need to directly intervene in the conflict, not only emotionally, but sometimes even physically (Ingoldsby et al., 1999), to reduce their stress levels. However, this effect is only temporary and if these severe arguments and emotional tension (Brock & Kochanska, 2016), are frequent through time, these emotionally negative reactions might become automatic and, consequently, children can transport them into other social contexts with conflict, such as a school, mirrored in acts such as bullying (Ingoldsby et al., 1999). Therefore, and as authors such as Cummings et al. (2012) have explained, emotional security can be considered an explanatory mechanism for not only internalizing behaviour problems, but also externalizing problems in children and adolescents.

The Present Study

The parental relationship and family dynamic play an important role on children and their development. If the child is exposed to negative-fuelled communication between their parents, specifically, emotional, physical and verbally negative conflict, not only is their emotional stability altered and effected (Davies & Cummings, 1998), but so is their perception of healthy and successful conflict-solving strategies (Bradford et al., 2008). This, in turn, has an influence on children's emotions and behaviour, heightening the probability of the child to develop behaviour problems in the future (Buehler & Gerard, 2002). It is, then, important to

know the gravity and the impact that exposure to interparental conflict has on children's behaviour, as this can gravely impact their future.

Therefore the primary goal of this systematic review is analyse the association between the exposure to destructive interparental conflict during childhood on externalizing behaviour problems. Buehler et al. (1997) also conducted a meta-analysis where they studied the association between interparental conflict and youth behaviour problems, analysing all types of interparental conflict styles (overt, covert, cooperative, avoidant, and withdrawn), all defined by them, using criteria such as frequency, intensity, form of expression, chronicity, content and degree of resolution. The authors found a weak to moderate association between the two variables, which might have been purified by controlling influences for other variables, such as age and gender of the child (Buehler et al., 1997). More recently, van Eldik et al. (2020) also conducted a meta-analysis where the association between interparental conflict and child responses was analysed. However, the authors studied not only behavioural responses, but also emotional, physiological, and cognitive responses from the child towards the conflict (van Elvik et al., 2020). In the present study, however, the focus will solely be on behavioural problems. Additionally, our study is necessary as it is the first to systematically gather longitudinal data regarding this association – while van Eldik et al.'s (2020) meta-analysis also included longitudinal data, the mean age for externalizing behaviour was 10 years old, meaning there is lack of data regarding later adolescence. Other than this, this review differentiates from others by specifically analysing the impact of exposure to IPC during childhood (from birth to age 9-10) on behavioural problems in adolescence (ages 10 to 19).

Even though the association between interparental conflict and children's maladjustment is well documented, there are conflicting findings about the associations between specific conflict styles and specific behaviour problems. While the main consensus is that overt conflict style is more associated with externalizing behaviours and covert conflict style is associated with internalizing behaviour, not all studies come to this conclusion. Therefore, another aim of this review is to clarify whether overt conflict style is more associated with externalizing behavioural problems than covert conflict style. Other than this, this review also aims to analyse whether behaviour problems developed from the exposure to interparental conflict persist through adolescence. The hypothesis for this review, based on previous literature, are that a) there will be an association between exposure to interparental conflict during childhood and externalizing behaviour problems in adolescence, and b) overt conflict style will be more related to externalizing behaviour than covert conflict style.

Method

Definition of concepts

Destructive interparental conflict was defined as a conflict style that includes hostility, contempt, coercion, physical and verbal abuse, as well as unresolved conflict and negative emotions (Cummings, 19998; Hetherington, 2017). This can include both overt conflict style, that is defined as hostile and violent and covert conflict style, defined as passive-aggressive and triangulating of the child (Buehler et al., 1997).

Externalizing behaviour problems are defined as aggression, cruelty, antisocial behaviour, noncompliance, disobedience and social acts such as bullying in the academic context (Buehler et al., 1997; Hetherington, 2017).

Lastly, according to the World Health Organization, adolescence is the period between ages 10 to 19, and childhood is allocated between birth and age 10 (WHO, 2015).

Eligibility criteria

To determine studies' eligibility for the present study, the selection criteria used was the following: a) interparental conflict, externalizing behaviour, childhood, and adolescence were measured as defined previously; c) studies were of a prospective longitudinal design; c) externalizing, antisocial, delinquent, and offending behaviour were assessed during adolescence; d) the exposure to interparental conflict was evaluated during childhood. Exclusion criteria for studies were a) the study focused on other adjustment variables that were not externalizing behaviour (e.g., academic failure and internalizing behaviour), b) the study focused on domestic violence (between parents and towards the child) or on conflict that did not involve parents (e.g., family conflict or parent-child conflict); c) the study was not published or in press in a peer-reviewed journal; d) the study provided no data on the exposure to interparental conflict during childhood; e) the study provided no data on behavioural problems in adolescence and; f) the study was not in English, nor in Portuguese or Spanish.

To further develop and specify the criteria for which studies were included and excluded - while screening for externalizing behaviours, a range of different dimensions, such as aggression, dating violence, bullying, and conduct problems were considered. Often, studies analysed family conflict, but did not specify which members of the family were involved. These studies were excluded; as well as those who focused on intimate partner violence / domestic abuse. Exclusion also occurred when interparental conflict was analysed as a mediator or moderator between another variable and child behavioural outcomes. Studies who included

marital conflict as a part of a composite variable, and therefore did not analyse it independently were also excluded. In addition, studies who analysed a specific type of population (e.g., alcoholic, or drug-using parents) were also excluded, as they can influence the results.

Search strategies

In order to collect data for this systematic review, 17 electronic databases were systematically searched from the beginning of 2022 up to March 2022. These were Academic Search Complete, Business Source Complete, APA PsycInfo, APA PsycArticles, APA PsycBooks, PEP Archive, Psychology and Behavioral Sciences Collection, Criminal Justice Abstracts with Full Text, eBook University Press Collection, eBook Collection, MEDLINE, ERIC, Teacher Reference Center, Regional Business News, Library, Information Science and Technology Abstracts (all accessed through EBSCOhost, https://search.ebscohost.com/), WebOfScience Core Collection (https://www.webofknowledge.com/) and Scopus (https://www.scopus.com/) . The combined key terms to conduct the online search were (interparental OR parental OR marital) AND (conflict OR discord) AND ("externalizing beh*" OR antisocial* OR offen* OR delinq*) AND (longitudinal). The search was not limited to any fields or languages. There were also no restrictions on the year of publication of the manuscripts. Additionally, reference lists from articles were also analysed to see if any important manuscript had been missed during the data base search. To ensure reliability, 10% of the search was independently replicated by another researcher, being that all discrepancies in the search were discussed in order to be resolved.

Coding procedures

Collected references were imported to the EndNote software where they were divided based on which database they were retrieved from. The next step was to remove all duplicates, not only automatically, but also manually. After this, the titles of each remaining manuscript were analysed and those who did not fit the criteria were excluded. The remaining articles were screened based on their abstracts. The next and last step was to fully read the remaining articles and exclude those who did not meet the criteria for the present study.

The manuscripts that were included for this review were coded according to the following characteristics: reference information (such as authors, year of publication, country), sample characteristics (age of the participant at the first wave of data collection as well as age of participant at the final wave, sample size, sample sex), type of interparental conflict (overt or covert, as well as the source of report), source of report of the externalizing behaviour

(children, parent or teacher report), and the results (effect size and statistical significance). When the type of interparental conflict was not identified or explicit, it was coded as "not specified". Three of the coded variables were selected as moderators, these being: sex and nationality of the sample and type of report (self-report, teacher, or parent report).

All this process and outcomes were synthetised according the PRISMA flow diagram (Fig. 1.) and the directions to complete the results table. To assess the risk of bias for each article included in the present study, the instrument "Criteria for the risk of bias assessment of non-intervention studies" by Sheperd et al. (2006, p. 242) was used. This instrument contains seven criteria to assess the risk of bias in each study, these being:

a) An explicit account of theoretical framework and/or the inclusion of a literature review which outlined a rationale for the intervention,

b) Clearly stated aims and objectives,

c) A clear description of context which includes detail on factors important for interpreting results,

d) A clear description of sample,

e) A clear description of methodology, including systematic data collection methods,

f) Analysis of the data by more than one researcher

g) The inclusion of sufficient original data to mediate between data and interpretation. (Shepard et al., 2006, p. 242).

For the analysis of the data in each article, some directions were taken. If the study had multiple people reporting on each variable, the chosen finding were based on the most impartial report, according this methodology:

1) Children's report, as they have the most impartial view regarding IPC and this study studies the impact of witnessing IPC on children's behaviour.

2) Teacher's report, as they are the most unbiased regarding IPC and children's behaviour. Teachers are also a detrimental party in the school context as they observe children's behaviour towards their peers.

3) Mother's report, as mothers are usually the most victimized and the ones who, culturally, spend more time with children.

4) Father's report.

Additionally, for the analysis of each effect size, we assessed the correlation between the earliest assessment for interparental conflict and the latest assessment for externalizing behaviour so that we could ensure that the retrieved data was pertaining to the longest period between assessments.

Results

Included studies

The search of the databases with the search equation resulted in 1647 references; being that 955 of those were duplicates, and therefore, removed. One additional article was included after checking reference lists from studies. Six hundred and ninety-three titles were screened for their titles, resulting in the exclusion of 394 references. Abstracts of the remaining 299 references were read. Of these, 236 articles were removed, resulting in 64 articles assessed for eligibility. These were read integrally, and 52 were excluded.

One of the main reasons for exclusion was the variables that were being measured (e.g., family conflict and/or parent-child conflict) as well as the inclusion of interparental conflict as a mediator or moderator of the association between another variable and children's behaviour problems. One example of a study that was assessed for full-text but was excluded is an article by James et al. (2021), in which the authors analysed the association between marital quality on children´s well-being; however, marital quality was analysed as a multidimensional construct that included conflict between parents among other factors.

Twelve studies were excluded because of the ages of the participants, meaning that children included in the study did not fit the age gap needed for the present study (e.g., the study only exclusively analysed children or adolescents in the timeframe). For example, Park and Dotterer (2018) studied longitudinal associations between family stressors and children's externalizing behaviour, however the children included in the study were three at the first data collection and seven at the last.

Additionally, twelve other studies were removed for analysing interparental violence or domestic abuse, instead of interparental conflict. For example, Emery and Buehler (2009), studied the longitudinal association between domestic violence, specifically husband violence on children's behaviour problems, such as externalizing and internalizing. Lastly, three studies

were also excluded for not being of a longitudinal design, for example Bozzay et al. (2017) used a cross-sectional design to study family pathways and youth's externalizing behaviour.

One other study (Jenkins et al., 2006) was excluded because of the sample. This study, while it met all the criteria for inclusion (ages of the sample, ages at assessment of the variables), its sample consisted of teenage mothers who were evaluated in a twelve-year period. Because of this sample, which is very specific, and therefore, implicates a range of other factors that can influence the result; the study was excluded from the final sample. All 11 included studies fit at least 6 of the seven criteria of the risk of bias assessment, and therefore were eligible for the present study. This process is synthetised on the flow diagram shown in Fig. 1.

Descriptive information

The articles included in this study were mainly published between 2000 and 2009 and between the year 2010 and 2019. One study included was published in 1996 and, the most recent, in 2022. The majority are from samples collected in the USA (Cummings et al., 2006; Cummings et al., 2012; Gerard et al., 2006; Lavoie et al., 2002; Sim & Vuchinich, 1996; Tu et al., 2005; Schoppe-Sullivan et al., 2007 & Underwood et al., 2008), followed by one article from Europe (Baviskar, 2010), one from China (Wang et al., 2022) and one from Australia (Westrupp et al., 2018).

The samples from all included studies were community samples, and every study, except one (Lavoie et al., 2002) had a mixed-gender sample of children. Lavoie et al. (2006) had an only male children sample. Most of the articles did not indicate the ethnicity of their samples, but from those who did, the samples were either mixed (Cummings et al., 2012; Sim & Vuchinich, 1996; Underwood et al., 2008; Tu et al., 2005;) or more than 80 per cent Caucasian (Cummings et al., 2006 & Schoppe-Sullivan et al., 2007).
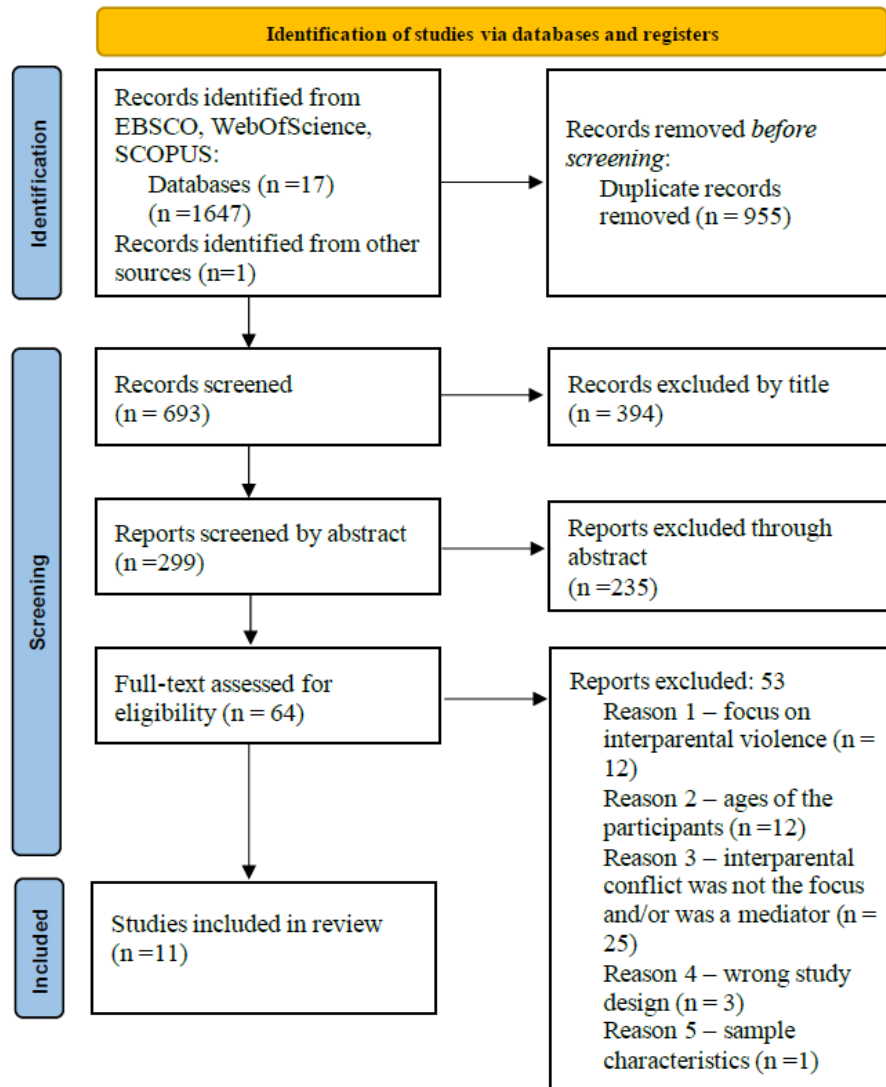
Fig.1. Inclusion process

Children's exposure to interparental conflict was assessed, or during both childhood and adolescence (*k*=7), or exclusively during childhood (*k*=5). Parents reported their own conflict and conflict strategies in eight of the included studies, while children reported on their parents' conflict in two of the articles. And, for two studies, both children and parents reported for interparental conflict. This was similar for the assessment of externalizing behaviour, as it was analysed by eight studies during childhood and adolescence, and only in adolescence for four studies. Parents reported for their children's externalizing behaviour on seven of the included studies, while children assessed their own behaviour on four articles, and teachers also reported this on one of the included articles. All these descriptive characteristics are summarized on Table 1.

Table 1. Descriptive information

Variables	Categories	N
Reference Characteristics		
Report Year	1990-1999	1
	2000-2009	6
	2010-2019	4
	2020-2022	1
Report Type	Journal article	11
Study Characteristics		
Location	USA	8
	Germany	1
	Denmark	1
	China	1
Sample Characteristics		
Year of Recruitment	1970-1979	1
	1980-1989	2
	1990-1999	1
	2000-2009	2
	Not available	5
Sample Frame	Community	11
Child Sex	Male	1
	Mixed	10
Ethnicity	>80% caucasian	2
	Mixed	4
	Not avaliable	5
Assessment of exposure to interparental conflict	Childhood	5
	Childhood and Adolescence	6
Source	Parents	7
	Children	2
	Both	2
Asessment of externalizing behaviour	Adolescence	3
	Adolescence and Childhood	8
Source	Parents	7
	Teacher	1
	Children	3
Type of interparental conflict	Overt	4
	Covert	-
	Both	3
	Not specified	4

Main findings

From 11 included articles, nine found a positive association between exposure to interparental conflict during childhood and consequent externalizing behaviour problems during adolescence. On the other hand, one of the included studies found no significant association between the two variables. These findings are summarized on Table 2.

Baviskar (2010) studied the impact of interparental conflict on children's outcomes, as well as the impact of children's gender on this association. The author assessed interparental conflict when the children were aged seven through mother's report and children's outcomes at age 11, through mothers' and children's reports. The type of interparental conflict was not specified, however the questionnaire included items such as the frequency of arguments. The author observed that interparental conflict had a significant association with conduct problems when children were aged 11 ($\beta= 0.49$, $p<.001$). In this study, gender was a weak moderator between the two variables, and it only had an important role regarding conduct problems, being that girls showed stronger association between IPC and conduct problems than for boys.

Similarly, Cummings et al (2006), studied the influence of IPC on children's adjustment with emotional security as an explanatory mechanism. IPC was assessed through parent and children's report at both waves of data collection; and parents reported on children's externalizing behaviours also during both waves. Results showed an effect of perceived IPC on children's externalizing behaviours on the second wave ($r=.18$, $p<.05$).

Additionally, Cummings et al. (2012) analysed the impact of IPC on childhood (children aged 6) through parents report on externalizing behaviour problems in adolescence (children aged 12 years old). Results indicate that while there is no direct effect of the combined factors of IPC on externalizing behaviours; IPC characterized by physical aggression had a significant association with aggressive behaviour and rule-breaking in adolescence ($r=.16$, $p<.05$; $r=.28$, $p<.001$).

Gerard et al.'s (2006) study indicates that parent-child relations and youth maladjustment has a positive association between IPC and externalizing outcomes. The authors analysed interparental conflict at both waves of data collection (Wave 1: 5-10 years old; Wave 2: 10-17 years old). This was assessed through parent's report and had two indicators: disagreement and overt conflict. Externalizing behaviours were also assessed at both waves and through parent reports. The authors found a direct association between overt marital conflict

and externalizing behaviours at both waves (r=.11, p<.05 at Wave 1; r=.16, p<.05 at Wave 2). However, they also found that this association was explained by harsh discipline and parent-child conflict, though the concurrent association between marital conflict and externalizing behaviours at Wave 2 was only partially explained by these factors.

In 1996, Sim and Vuchinich, when analysing the effects of family stressors on antisocial behaviour through childhood, adolescence, and adulthood, also found an association between parental conflict and antisocial behaviour. For the purpose of the present study, only the data retrieved from childhood through adolescence was analysed. Both variables were analysed at all waves of data collection, being that IPC was through parents' report and antisocial behaviour through self-report. The authors found that, not only the influence of IPC on antisocial behaviour was significant both during childhood and adolescence, but it also persisted through time. Additionally, exposure to IPC during childhood was a strong predictor of antisocial behaviour in adolescence (exp (β)=1.23, p<.001).

Furthermore, Schoppe-Sullivan et al (2007), studied the association between IPC and children's adjustment, as well as the role of parenting as a mediator of the two. IPC was assessed during childhood, when the children were aged between 8 to 16, and behaviour problems were analysed in the three data waves, being that children were aged between 11 to 19 at the last wave. Both were assessed through parents' report. The authors found a positive significant association between IPC and externalizing behaviour problems. The authors also noted that the influence between IPC and externalizing problems seemed stronger when verbal aggression was reported by the father and the child was male (r=0.26, p<.001) and when verbal aggression was reported by the mother and the child was female (r=0.34, p<.001). Tu et al. (2016) studied the association between IPC and youth adjustment with coping responses a moderator. Overt IPC (physical and verbal) was assessed at three waves of data collection (when children were aged 8, 9 and 10) through mothers' report, and externalizing problems were assessed at all waves, being that children were aged 15-16 at the last one. The results showed a positive association between marital conflict during childhood on later adolescent externalizing behaviours (r=0.16, p<.05).

Wang et al (2022) also studied the association between the perception of interparental conflict on internalizing and externalizing behaviour problems in Chinese children. Children were aged 8 to 11 on the first of three annual waves of data collection and both variables were assessed through self-report on all occasions. Results showed that perceived interparental

conflict had a significant association with the development of externalizing problems (r=0.15, p<.001).

Additionally, Westrupp et al (2018) also found a significant association between IPC and behaviour problems in children. The authors analysed overt IPC at the first (0 to 1 years old), second (2-3 years old), third (4-5 years old) and fourth wave of data collection (6 to 7 years old), through parent's report. Behavioural outcomes were assessed through children, parents, and teachers' reports at the last wave of data collection, when children were 10 and 11 years old. Results showed that physical IPC was positively associated with externalizing problems, especially when the exposure to IPC was repeated (β=0.98, p<.04, for father's report; β=.90, p<.02 for mother's report; β=.89, p<.02 for children's report; β=.90, p<.05, for teacher's report). However, repeated verbal IPC was even more consistently associated with externalizing problems than physical IPC (β=1.55, p<.001).

However, not all included studies had the same outcome. Underwood et al (2008) studied the impact of overt and covert interparental conflict on children's aggression towards their peers. Through parents' report, IPC was analysed when the children were aged 9, and children's outcomes were analysed at age 9 and age 10 through teacher's report. The authors found partial support for their hypothesis that IPC is related to children's aggression towards their peers when considering the parents and the children's gender. For girls, mother's aggressive conflict strategies were associated with their own social and physical aggression (r=.23), but the same was not observed for boys.

On the other hand, one study showed no association between the two variables. Lavoie et al. (2002) analysed family disfunction's role on dating violence perpetration for an only male sample. Exposure to IPC was assessed through self-report when the boys were 10, 11 and 12, and dating violence was assessed at ages 16 and 17 through self-report. The authors found no association between the witnessing of IPC on the later variable (r=.04).

Table 2. Table of results

Source	Sample Size	Children Sex	Age at Assessment of Externalizing Behaviour	Externalizing behaviour - source	Age at assessment of IPC	Type of Interparental Conflict - source	Results	Outcome
Baviskar (2010); Denmark	2813 children	52% boys 48% girls	11	Mother, children	7	Mother report; Not specified	*β=.49(0.11), p<.001	Conduct problems
Cummings et al. (2006); USA	226 children	50% boys 50% girls	8 to 7; 10 to 19	Parents	8 to 17; 10 to 19	Parent report, self-report; Overt	r=.18, p<.05	Externalizing behaviour
Cummings et al. (2012); USA	235 children	45% boys 55% girls	8, 12	Parents	6	Parent report; Overt	r=.16, p<.05 r=.28, p<.001	Agressive and Rule-breaking behaviour
						Parent report; Covert	r=18, p<.05 r=.20, p<.05	
Gerard et al. (2006); USA	235 children	48% boys 52% girls	5 to 11; 10 to 17	Parents	5 to 11; 10 to 17	Parent report; Overt	r=.16, p<.05	Externalizing behaviour
Lavoie et al. (2002); USA	717 boys	Male	15, 16	Self-report	10, 11, 12; 15, 16	Self-report; Not specified	r=.04	Dating violence
Schoppe-Sullivan et al. (2007); USA	283 children	51% boys 49% girls	11 to 19	Parents	8 to 16; 11 to 19	Parent report; Not specified	r=.25, p<.001	Externalizing behaviour
Sim & Vuchinich (1996); USA	919 children	49% boys 51% girls	7 to 11; 18 to 22	Self-report	7 to 11; 18 to 22	Parent report; Not specified	**expβ=1.23, p<.001	Antisocial behaviour
Tu et al. (2015); USA	304 children	51% boys 49% girls	8; 9; 10; 15	Mother	8; 9; 10	Mother report; Overt	r=.16, p<.05	Externalizing behaviour
Underwood et al. (2008); USA	281 children	50% boys 50% girls	9; 10	Teacher	9	Parent report; Overt and covert	r=.23	Aggressive behaviour
Wang et al. (2022); China	660 children	67% boys 33% girls	8 to 11; 9 to 12; 10 to 13	Self-report	8 to 11; 9 to 12;10 to 13	Self-report; Overt and covert	r=.15, p<.001	Externalizing behaviour
Westrupp et al. (2018); Australia	3696 children	51.2% boys 48.8% girls	10 to 11	Parents, Teacher, Children	0 -1; 2-3; 4-5; 6-7	Parent report; Overt	*Physical aggression β=0.89, p<.02 (0.12 - 1.67)	Externalizing behaviour
							*Verbal agression β=.90, p<.001 (0.37 - 1.42)	

*simple regression; **unadjusted odd ratio

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Discussion

Previous literature has found that interparental conflict, when destructive, can lead to emotional and behavioural maladjustment outcomes on children, through their course of development (Buehler et al., 1997; Hetherington, 2017). This maladjustment is reflected in different social contexts, such as the school context (Gerard et al., 2006). This can be observed through externalization, which in turn, reflects itself on acts such as disobedience, aggression, bullying, conduct problems, and even delinquency (Buehler et al., 1994). However, previous literature has, not only, shown inconsistencies on the association between interparental conflict and externalizing behaviour, but also in its longevity.

Therefore, this systematic review of longitudinal studies was conducted with the purpose to assess the association between the exposure to destructive interparental conflict during childhood on the development of externalizing behaviours during adolescence. Additionally, we also aimed to analyse whether overt conflict style was more associated with externalizing behaviours than covert conflict, and the persistence of this association. Two meta-analyses on the study of this association have been conducted (Buehler et al., 1997; van Eldik et al., 2020), making this study the third on this matter, and the first to analyse only externalizing behaviour. Additionally, to our knowledge, this is the first review to systematically analyse longitudinal data and to assess the long-term association between exposure to interparental conflict during childhood and behavioural problems in adolescence.

The direct association between interparental conflict and externalizing behaviours

Our findings support the main hypothesis that exposure to IPC during childhood predicts externalizing behaviours. Out of the eleven included studies, nine showed a significant association between IPC and behaviour problems. These findings support those of van Eldik and colleagues' (2020) meta-analysis, who found a positive association between IPC and behavioural and emotional problems in children, especially externalizing problems. However, these findings do not substantiate Buehler et al.'s (1997) meta-analysis conclusions. In their study, the association between IPC and externalizing behaviours was weak to moderate in strength.

In most of the included studies that showed a strong correlation, IPC was assessed during both childhood and adolescence (Gerard et al., 2006; Sim & Vuchinich, 1996; Schoppe-Sullivan et al., 2016; Wang et al., 2022), which could lead to the idea that the association

between these two variables would only be strong when the conflict persists through adolescence. Not much is known about the impact of the age of the child on the association between IPC and behaviour problems; however, Buehler et al. (1997) found that age was not a predictor of a stronger correlation in their meta-analysis. Our findings support those of Buehler et al. (1997). In cases such as Baviskar (2010), Cummings et al. (2012), Tu et al. (2015) and Westrupp et al. (2017), where IPC was only assessed during childhood, this association was still strong. This could mean that IPC has an impact on the development of externalizing behaviours, even when it is witnessed only during childhood. It is important to note, however, that Westrupp et al. (2017) observed that adolescents who had been repeatedly exposed to IPC had higher levels of externalizing behaviours than those who had only witnessed IPC once.

These findings support those of previous literature that showed that children living in a high-stress household, where conflict between parents is frequent have a higher likelihood of developing behavioural problems (Pauli-Pott & Beckmann, 2007). This also adds to Buehler et al. (1994) understanding that certain characteristics of IPC, such as frequency, are detrimental to possible maladjustment in children. Once again, this validates van Eldik et al.'s (2020) findings that the frequency of the conflict was a strong predictor of externalizing behaviours, being that in their meta-analyses, it was the only dimension assessed that showed a consistent association with maladjustment. As suggested by Pauli-Pott and Beckmann (2007), frequent conflict between parents is associated with negative emotionality and reactivity in children, which can lead to the development of behavioural problems – this is based on the primary concepts of the emotional security theory. Children's sense of security is reduced when witnessing their support (their parents' relationship) in conflict, leading to feelings of insecurity and guilt and the sense of obligation to intervene in the conflict (Davies & Cummings, 1994). This is heightened when the conflict is severe and frequent. Children's emotional security will continue to reduce and feel threatened when there is a constant tension and fear of breakdown in the family system, which in turn can lead to emotional and behavioural maladjustment (Davies & Cummings, 1994).

Another important finding is that IPC has an influence on different types of externalizing behaviour. While most studies did not specify what type of externalizing behaviour was being assessed, others analysed specific dimensions. Cummings et al. (2012) assessed that exposure to IPC in childhood has a significant impact on aggression in adolescence. Furthermore, Baviskar (2010) observed that IPC was significantly associated with conduct problems.

Therefore, this systematic review supports that being exposed to IPC leads to a greater likelihood of development of a wide array of externalizing behaviours, which can range from milder behaviours, from disobedience to more serious conduct problems.

On the other hand, the role of time between the assessment of IPC and the assessment of externalizing behaviour remains unclear. For example, Underwood et al. (2008) found a moderate correlation between IPC and aggression in a one-year interval. Perhaps the gap between these two evaluations has a role on the result, as, for the other studies, the period between evaluations was longer. This hypothesis, however, contradicts van Eldik and colleagues' (2020) conclusion that the time between assessments is not an important influence on the association. Future research should analyse whether the frequency of the conflict and the longevity of it have an influence on the consistency of the association between IPC and externalizing behaviours.

As previously stated, not all studies found a statistically significant relationship between IPC and externalizing behaviour. One study found no association between these two variables, even with bigger periods between assessments – IPC was not associated with dating violence at age 16 in Lavoie et al. (2002) study. It's important to note, that in this study, multiple sources of family disfunction were assessed, being that IPC was one of them. This finding corroborates the conclusions of Buehler and colleagues' (1997) meta-analysis – the authors hypothesised that the association between IPC and externalizing behaviours had been purified by controlling other factors, leading to the idea that perhaps IPC only has an impact when it's combined with other factors, such as individual and family factors. This somewhat revolves around the spillover theory – IPC has an impact on behaviour problems by primarily affecting the parent-child relationship through parenting practices (Erel & Burman, 1995). In this way, there needs to be a mediator for this association to exist. This is also observed in one of the included studies – Gerard et al. (2006) found that even though there was a direct association between witnessed IPC and externalizing behaviours in adolescence, there were occasions in which this was partially explained by harsh discipline and the parent-child relationship. Therefore, we can see partial evidence that the negative emotions and hostile behaviour from the parental relationship transports itself onto harsher parenting practices, which in turn affect the parent-child relationship, and consequently children's adjustment. It is important that future research, when studying IPC and behavioural problems, controls for parenting practices and the parent-child relationship, in order to clarify whether this association is direct or influenced by these factors.

In short, the hypothesis that a significant association between the exposure to interparental conflict during childhood and the development of externalizing behaviours during adolescence would be observed, was corroborated. Most of the included studies showed a positive association between these variables. There are, however, a few topics that should be clarified in future research, such as whether the frequency of the exposure to the conflict is influential to the effect size, as well as if the period between assessments is important to this correlation. Apart from this, partial evidence corroborating the spillover theory was also found, meaning that in future research, factors such as parenting practices and the parent-child dyad should be analysed to clarify whether the association between IPC and behavioural problems is direct or influenced by these factors.

Does overt interparental conflict have a stronger association with externalizing behaviours than other forms of conflict?

The secondary goal of this systematic review was to clarify the specificity of the association between different types of IPC and externalizing behaviours. More specifically, whether overt conflict style was more correlated with externalizing behaviours than covert conflict style.

However, it was not possible to draw clear conclusions. From the eleven included studies, only five analysed overt conflict style, and none analysed covert conflict style individually. In studies in which there seemed to be characteristics of both covert and overt styles, they were not compared, except for Cummings et al. (2012). It is possible, nevertheless, to see some patterns. From this review's sample, and contrary to the hypothesis that overt conflict style would be more strongly related to externalizing behaviours, the results from studies who analysed overt conflict style don't differentiate from those who didn't specify the type of conflict. In fact, the only article (Cummings et al., 2012) that specifically analysed covert (stonewalling) and overt (physical aggression, nonverbal and verbal anger) styles, showed findings that did not fully support this hypothesis. Both overt and covert style were associated with externalizing behaviours. Regarding aggression in adolescents, stonewalling showed a slightly larger correlation than physical aggression; while for rule-breaking, physical aggression showed a stronger association than stonewalling. The other dimensions of overt conflict style, however, did not show a correlation with either aggression or rule-breaking behaviour (Cummings et al., 2012).

Additionally, Gerard et al. (2006) observed that the correlation between witnessed parental disagreement during childhood and externalizing problems in adolescence was stronger than the correlation between overt conflict and externalizing behaviours. This goes against Buehler and colleagues' (1997) finding that overt conflict style was more associated with youth behaviour problems than other forms of conflict, as well as it was more strongly related than the frequency of the conflict. In contrast, van Eldik et al. (2020) did not find a stronger association regarding different forms of conflict, however the findings suggest that frequency of the conflict was an important dimension in the association between IPC and behaviour problems.

The strong association between specifically aggressive IPC and aggressive and rule-breaking behaviour shown in Cummings et al. (2012) study go according to the social learning theory. Social learning theory claims that children will learn aggressive and unconstructive conflict strategies by directly observing their primary models (their parents) in an argument and will apply them to their own social contexts and relationships (Akers & Jensen, 2009).

There was, however, an unexpected and conflicting finding regarding different types of aggression. Whereas Cummings et al. (2012), found that only physical aggression had a significant impact on aggressive behaviour, Westrupp and colleagues (2017) found the that verbal IPC had a stronger impact. Westrupp et al., (2017) study, repeated verbal aggression showed stronger association on children's externalizing problems than repeated physical aggression for all types of reports, including children's, mother's and father's, except for the teacher's report, which was the same for both forms of aggression. van Eldik et al.'s (2020) meta-analysis found some support for this finding – the authors found that hostile conflict, specifically verbal and physical conflict, played a greater risk for the development of externalizing behaviour problems than destructive IPC.

In general, because of the lack of sufficient data regarding conflict styles, it was not possible to draw conclusion for the secondary goal of this review. However, from the amount of data available, the hypothesis that overt conflict style would be more associated with externalizing behaviours, was not corroborated. In general, we did not find substantial differences in effect sizes between overt conflict style and other styles of IPC. Additionally, there are contrasting findings regarding different types of aggression – while in some studies verbal aggression showed a stronger association than physical aggression, others showed the opposite. It is important, then, that future research analyses specific styles of conflict and their

association with behavioural problems, as there doesn't seem to be sufficient data on covert conflict style, for example. Apart from this, future research should also clarify the impact of different forms of aggressive IPC on children's adjustment.

The effect of the moderators

One of the moderators chosen for this review was the sex of the child, however it was not possible to draw conclusions about the influence of gender on the association between IPC and externalizing behaviours, as most of the included studies did not analyse girls and boys separately. From the few that did, the results came as unexpected. Both Underwood et al (2008) and Baviskar (2010) found that girls seemed to be more vulnerable to the development of externalizing behaviours after witnessing IPC than boys. Underwood et al. (2008) found that girls' externalizing behaviours were more associated with observing negative conflict strategies by mothers, while Baviskar (2010) observed that while gender was a weak moderator, the association between IPC and conduct problems was stronger for girls. This goes against previous literature that deemed boys as more susceptible to the development of behavioural problems as a result of exposure to IPC (Jouriles et al., 1991). However, this corroborates Buehler and colleagues' (1997) conclusions, that the difference between boys and girls was not significant and, therefore, gender is a weak mediator.

The type of report of the variables was also analysed as a moderator, but once again, it is not possible to clearly state its significance. Most studies had either just the parents reporting on both variables or just the children; therefore, it is difficult to compare the impact of the type of report on the effect size. There were, however, a few studies who had multiple people reporting on both IPC and externalizing behaviour. Schoppe-Sullivan et al (2016) and Westrupp et al (2017) found that father's report resulted in a higher effect size. In Schoppe-Sullivan and colleague's (2016) article, fathers' report showed higher levels than mothers', and in Westrupp et al.'s (2017) fathers' showed higher levels than mothers', children's and teachers' reports on physical aggression. However, for verbal aggression, mothers showed a slightly higher prevalence than fathers. In contrast, and according to Buehler et al. (1997) conclusions, Cummings et al. (2006) found that mothers' report presented higher effect sizes than fathers' report.

Limitations and future research

This systematic review and its conclusions come with limitations. Firstly, our search was limited to three languages, which means that three might be other longitudinal studies in other languages that could provide important information on this research topic.

Additionally, systematic reviews reflect the limitations of the included primary studies. As mentioned previously, while discussing the results, the included studies did not offer nor compared a varied analyses of multiple conflict styles, limiting the degree of reliability and the possibility of answering one of the main goals and questions for this study. Other than this, the samples of the articles were not diverse, as most of the studies came from a western country and did not provide information on the sample's ethnicity and socioeconomic status. It should be interesting for future studies to analyse how different cultures and countries view interparental conflict and how it affects children. Regarding sample, and as mentioned previously, while most studies had a mixed gendered sample, this was mostly not an analysed factor, leading to unconclusive findings on whether children's sex has an influence on the development of behavioural problems.

Another limitation is the way that studies statistically analysed the association – not all studies used the same process of evaluation, making it hard to compare effect sizes.

Multiple articles were removed from the process because, and as mentioned in the exclusion criteria, they assessed intimate partner violence, also known as domestic violence. However, as mentioned previously, there seems to be blurred lines between the constructs overt conflict style and domestic violence. While using an overt style doesn't necessarily mean there is the use of violence, it can exist. In fact, some of the included studies analysed factors such as physical and verbal aggression. Perhaps future research should assess how to separate these two concepts, and perchance articles who focus on marital violence can be included in reviews on this topic.

There were some questions left unanswered in this review, specifically the impact of different types of conflict styles on adolescents' behaviour. Future research should, therefore, aim to clarify this question by analysing conflict styles separately – specifically covert conflict style, as there seems to be lack of literature on it. Apart from this, other factors that can influence this association should be controlled in future research, such as parenting, the parent-child relationship, and the frequency of the conflict.

Conclusion

This review aimed to assess the impact of witnessing interparental conflict during childhood on later externalizing behaviour problems in adolescence. To our knowledge no recent systematic review has analysed the impact of parental conflict specifically on externalizing behaviours, nor has specifically analysed the longitudinal impact of this exposure during childhood on behaviour problems in adolescence. By doing so, this review adds to previous literature by providing consistent evidence that IPC has a long-term impact on adjustment in children. Multiple data bases were screened and after systematic research, eleven studies were included and analysed thoroughly.

A significant association between IPC and externalizing behaviour was found, corroborating our main hypothesis. Most of the included studies show that this association exists and persists through time. However, not all hypotheses were supported. The hypothesis that overt conflict style would be significantly more associated with behaviour problems than other styles was not confirmed – while there was not sufficient data to draw a consistent conclusion, the available data showed that there are no significant differences between distinct conflict styles. Therefore, future research should aim to clarify these findings to further enhance knowledge on this topic and to find ways to prevent the development of maladjustment in children in high conflict homes.

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