Violent and Agressive Behaviour: Are we Defining the Problem Appropriately?

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Violent behaviour has an abundance of negative consequences ranging from the victim's personal distress to increased economic strain on an entire community. The search for the cause(s) of aggression has been long underway with some major findings and innovations. However, there have also been several overlooked topics pertaining to the increased likelihood of violence. The current review aims to examine one of these oversights: the deeper meaning of trait aggression and the role of emotional self-regulation in violence perpetration. The author reviews current literature on the topic and outlines several correlations between violent behaviour and emotional self-regulation, which appear to be consistent across multiple adult populations. The author argues that this strong link provides due cause for future research aimed at empirically examining the relationship between emotional self-regulation and violent behaviour.

Keywords: emotional self-regulation, trait aggression, violence, aggressive behaviour

Les comportements violents ont une abondance de conséquences négatives allant de la détresse chez la victime à une pression économique accrue sur toute la communauté. La recherche de la ou des causes de l'agression est en cours depuis longtemps. Toutefois, il y a eu plusieurs sujets négligés en ce qui concerne la probabilité accrue de violence. Cette revue de littérature vise à examiner l'un de ces oublis : la signification du trait agressivité et le rôle de l'autorégulation émotionnelle dans la perpétration de violence. L'auteure passe en revue la littérature actuelle sur ce sujet et décrit plusieurs corrélations entre le comportement violent et l'autorégulation émotionnelle qui semblent être cohérentes à travers plusieurs populations adultes. L'auteure soutient que ce lien justifie la pertinence des futures recherches visant à examiner la relation entre l'autorégulation émotionnelle et les comportements violents.

Mots-clés: autorégulation émotionnelle, trait agressivité, violence, comportement agressif

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The question as of why people behave aggressively has been studied from many different perspectives and disciplines ranging from neuroscience to philosophy. The intense interest in the subject of violence is likely linked to the profound negative consequences of such behaviour. While rates of violent crime, and violence in general, have been on the decline since about 1990 in Canada, recent studies have shown a surge in new or different forms of violence not recorded before 1960 (e.g., cases of female sexual sadism and more recently an increase in physical violence in adolescent females, etc.), as well as a general increase in violent crime since 2013 (Statistics Canada, 2015, 2020; Stone & Brucato, 2019; Tully & Bamford, 2019). This clearly illustrates that, while progress has been made in violence reduction, we must continue to produce

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research and studies as new challenges and patterns in violent crimes continue to present themselves. Additionally, even with the steady decrease in violent crimes, over 330,000 adult victims are reported by the Canadian police each year, with an additional 60,000 children (aged 17 and younger) (Conroy, 2018). Moreover, certain agencies have already reported an increase in domestic violence during the current COVID-19 pandemic and many expect a further increase as the pandemic progresses, and even after it subsides (Campbell, 2020; National Domestic Violence Hotline, 2020). Though before we can meaningfully examine the current literature, we must construct and agree upon functional definitions for a few central terms.

While violence and aggression are relatively simple terms to define, defining and classifying different forms of aggressive behaviour can be more complex. Anderson and Bushman (2002) define violence as "aggression that has extreme harm as its goal (e.g., death)" and further explain that "all violence is aggression, but many instances of aggression are not violent" (pp.29). We will use "violence" to refer to actions resulting (or intending to

result) in serious physical harm. There are two general understandings of "aggression" in the relevant literature. The first recognizes aggression as a broader and less consequential form of violence which can manifest in non-physical forms (e.g., verbal, relational, etc.) (Anderson & Bushman, 2002; Hsieh & Chen, 2017); and the second regards aggression as an affective state or a set of behaviours associated with violent intent which do not necessarily result in a harmful action (Mahady Wilton et al., 2000). Both understandings are relevant in the current review and thus, aggression will refer here to the first definition and 'negative emotional arousal' will refer to the second.

Moving onto the classification of types of aggression, there are many factors to consider. Some scholars differentiate between verbal, physical, proximal (i.e., posturing or breaching personal space), and relational aggression (Horton, 2021; Robertson et al., 2020; Werner & Nixon, 2005). For the purposes of the current review, one's form of aggressive behaviour unimportant. More important, however, is recognizing the difference between instrumental and reactive aggression. Lee and Hoaken (2007) differentiate the two by stating that "[r]eactive aggression refers to impulsive retaliatory aggression in response to a perceived threat or provocation" whereas "proactive [instrumental] aggression refers to aggressive acts in pursuit of a goal or desired outcome" (pp. 282). This review will focus exclusively on reactive forms of aggression as instrumental aggression represents behavioural (unemotional) choices based on desired outcomes and planning, rather than behaviours/emotions presented in response to provocation (Lee & Hoaken, 2007; Lobbestael et al., 2013). Previous research suggests that these two forms of aggression must be addressed differently, and the former lends itself better to considerations involving emotion (Lobbestael et al., 2013; Maneiro et al., 2020).

Much of the progress in our understanding of the mechanisms of violence and violence reduction began with scholars from various fields who have identified several major risk factors or predictors of violent behaviour (Bond et al., 2004; Hoaken et al., 2003, 2007; Krakowski, 2003; Mednick & Kandel, 1988; Meyer-Lindenberg et al., 2006; Raine, 2008; Tremblay & Belchevski, 2004). Some of the factors considered most significant are executive functioning, impulsivity, and trait aggression. While understanding of executive functioning our and impulsivity continue to evolve and adjust with emerging literature, our understanding of trait aggression has not. In addition to the concept of trait aggression being static, it is also potentially limited to research and treatment interventions as it confines the

cause/explanation of aggression to simply past histories of aggression (i.e., crystalized behavioural patterns), ignoring context, emotional arousal, and emotional self-regulation.

The goal of this review is to examine relevant constructs relating to aggression and to conceptualize the concept of trait aggression while expanding the thinking of reactive aggression in multiple adult populations. In fact, using multiple populations allows a wider range of emotional dysregulation. To this end, articles for the current review were identified through PsycINFO database. Articles published between 2000 and 2021 were included if they met the following criteria: a.) peer-reviewed; b.) a meta-analysis or original research; c.) included adult participants; and d.) contained at least one of our key search terms in the abstract. These search terms were "violence", "aggression", "trait aggression", "violent ideation", "emotional self-regulation", and "abuse". Several historical sources are also mentioned below to provide context (e.g., Buss & Perry, 1992; Cannon, 1987; Fehr & Stern, 1970), but these sources are not considered as part of the analysis.

Based on the review of the literature that meets the criteria noted above, the current review argues that the negative emotional arousal of subjects exhibiting reactive aggression is often overlooked and is likely a significant and treatable factor contributing to violent behaviour. This review is particularly relevant for individuals who are regularly faced with aggressive people or the victims themselves (e.g., schoolteachers, recreation leaders/coaches, and emergency room personnel) (Dheensa et al., 2020; Lloyd, 2018; Szilassy et al., 2017), as these are the people most situated to intervein. For example, Szilassy et al. (2017) found that general care physicians lack an adequate understanding of domestic violence and feel uncomfortable addressing possible violence with patients, thus prompting the authors to develop a training protocol specifically for educating medical professionals about domestic violence. To this end, the current review will begin by discussing the greater prevalence of violent ideation than violent action during conflicts. The review will then continue by discussing the use of trait aggression in a sampling of current literature and the underlying meaning and relevance of trait aggressiveness. The review will finish by discussing some treatments relevant to violent behaviour, such as trauma-focused cognitive behavioural therapy (TF-CBT), eye movement desensitization and reprocessing (EMDR), and emotion-focused therapy for trauma (EFTT). TF-CBT is a trauma focused extension of cognitive behavioural therapy, a structured psycho-social intervention focused on forming adaptive cognitions and resulting behaviour. EMDR is a psychotherapy that uses eye

movement to aid in the processing of difficult/ traumatic content. EFTT is a psychotherapy designed to treat adults suffering from challenges stemming from childhood abuse. The current review is not intended to be an exhaustive representation of the literature on violence research as the relevant literature cannot adequately be represented in a single paper.

Literature Review

Background and Theoretical Context

Early theorists James and Lang proposed a physical basis of emotion in the 1980s, which has been revised and criticized by many researchers since (Cannon, 1987; Fehr & Stern, 1970; James, 1994; Lang, 1994). Numerous studies have taken the physiological basis of emotion into account and these studies have shown that poor emotional self-regulation in abused children tends to be comorbid with greater than average aggressive behaviour in school and later on in adulthood (Lee & Hoaken, 2007; Maguire et al., 2015; Norman et al., 2012; Pollak et al., 2000; Siegel, 2013). However, the role of emotional self-regulation in aggression has not been thoroughly studied as it continues into adulthood. Furthermore, while traits like poor executive functioning and low impulse control, defined as the tendency to make quick decisions and act without thinking (Hoaken et al., 2003), have been linked to violent behaviour, the emotion that precedes these two mediators has also not been thoroughly researched. Despite the lack of studies, some previous research showed that there are more individuals experiencing aggressive ideation (i.e., negative emotional arousal) than people actually engaging in violent/aggressive behaviours (Denson et al., 2012; DeWall et al., 2007; DeWall et al., 2011; Finkel, 2007; Finkel et al., 2009). This finding carries important implications for the prevention of violence as the ability of a person to manage their own aggressive ideation means that people have the potential to recognize their cognition and come to a decision about their behaviour, hence preventing outward displays of aggression. This points to emotional self-regulation as a promising potential mitigator of violence that warrants further consideration.

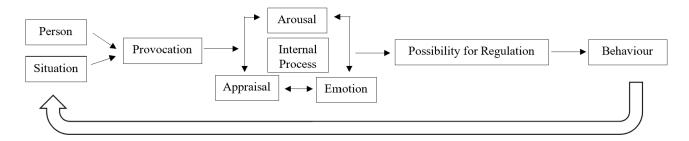
Even though trait aggression is considered to be one of the most relevant predictors of violent behaviour, it has not been specifically researched other than as a predictor of, or a control factor for, other predictors of violence. Trait aggression is understood as "a tendency to act aggressively." This tendency is measured either with reference to the history of a subject's violent behaviour or through a self-report of how "characteristic" a set of behaviours and cognitions are for the subject (Buss & Perry, 1992). While having a history of violence is a strong

predictor of future violence, it is not a predictor simply because violent people tend to be violent over time ("and that's that"); it is a predictor because there is undoubtedly a major factor underlying trait aggression, specifically in reactive instances of violence (Denson et al., 2011; Leki & Wilkowski, 2017; Sherrill et al., 2016).

While the current review will not discuss the alternative and already alluded to predictors of violence at length (i.e., executive functioning and impulse control), low executive functioning and low impulse control are important factors worth considering before thinking about the role of emotional regulation in mitigating reactive violent behaviour. Simply put, the most relevant aspect of executive functioning is the ability of a person to predict the consequences of their actions in order to make decisions that correspond with their goals/ intentions. An individual's capacity to learn from social cues relies on their ability to "use response feedback cues to regulate ongoing behaviour" (Hoaken et al., 2003). If this social learning is disrupted, one might fail to behave appropriately in a given situation, resulting in reactive aggression and possibly violence. Both executive and impulse control functioning deal consciousness and reason (or at least quasi-reason), but one cannot consider the reasonableness of their actions if they are emotionally compromised (Murray-Close et al., 2017). Therefore, it is essential to be cognizant of the role that negative emotional arousal plays in reactive aggression and pattern violence (Murray-Close et al., 2017).

If trait aggression is considered one of the strongest predictors of violent behaviour, which it is (Bond et al., 2004; Tremblay & Belchevski, 2004), and if aggression has roots in emotional affect, which it does (Lee & Hoaken, 2007; Paivio et al., 2010; Siegel, 2013), then trait aggression can be better explained as poor emotional self-regulation (which can be treated) rather than simply a history of or a proclivity for violence (DeWall et al., 2007; Hsieh & Chen, 2017; Siegel, 2013). See figure 1 for a graphical representation of the proposed model of aggression below. In short, an individual and their situation (including others) can individually or collectively present a provocation. An individual then experiences a cyclical interaction of internal processes that contribute to negative emotional arousal. After the provocation and before the resulting behaviour, the individual has the possibility of emotional selfregulation. If they attempt regulation successfully, no aggression results. If they attempt regulation unsuccessfully, or do not attempt it at all, aggression results.

Figure 1
Self-regulatory Model of Agression



Violent Ideation vs. Violent Action

As noted, studies have shown that people experience violent or aggressive impulses much more frequently than they act out violently (DeWall et al., 2007; Finkel, 2007; Finkel et al., 2009; McNulty & Hellmuth, 2008). While there are many outside influences that can provoke violence, violent behaviour is necessarily preceded by aggressive cognition, ideation, and/or intent (Bowes & McMurran, 2013; Clements & Holtzworth-Munroe, 2008; Evans et al., 2007; Nunes et al., 2015; Walters, 2020). This fact provides us with hope as it suggests that individuals have the ability to prevent their own violent actions (Denson et al., 2012; DeWall et al., 2007; DeWall et al., 2011; Finkel et al., 2009). Therefore, a potential first step in preventing violent behaviour is to gain awareness of one's negative emotional experience and/or cognitions (Bowes & McMurran, 2013; Clements & Holtzworth-Munroe, 2008; Denson et al., 2011; Nunes et al., 2015; Walters, 2020). The following section will discuss some of the emotional and cognitive factors that differentiate violent ideation from violent action.

Prevalence of Violent Ideation vs. Violent Behaviour

As previously alluded to, studies have shown that people tend to think about or 'want' to be aggressive more often than they actually act aggressively (DeWall et al., 2007; Finkel, 2007; Finkel et al., 2009; McNulty & Hellmuth, 2008). This is intuitively pleasing as almost anyone can think of more occurrences where they wanted to act violently than events where they actually externalized these violent impulses. McNulty and Hellmuth (2008) conducted a study in which 72 newlyweds were asked (each partner individually) to fill out a self-report measure of any occurrences of intimate partner violence in the preceding year. Each partner was then given seven copies of a questionnaire with sections designed to assess the partner's experience of negative affect.

McNulty found that negative affect was reported much more frequently than physical aggression or violence and that higher reports of intimate partner violence were only correlated with negative affect when both partners exhibited negative affect. McNulty speculates that this finding is likely associated with the increased negative emotional arousal commonly experienced when both parties express negative affect (as compared to when only one partner does). This increase in emotional arousal was the most consistent predictor of when negative affect would lead to physical confrontations between intimate partners. Furthermore, self-reports collected by Finkel et al. (2009) suggest that couples involved in a serious conflict frequently experience aggressive impulses without engaging in aggressive behaviour. It is clear that, at least to some extent, violent action (even reactive violence) is a choice.

Trait Aggression

One of the most reliable predictors of violent behaviour is trait aggression. Trait aggression is generally understood as the tendency toward aggressive behaviour. Trait aggression has been overlooked so far as it is considered a given predictor of violence based on the history of an individual's behaviour and has not been studied much further. Considering the necessarily (and even definitionally) strong correlation between trait aggression and every other predictor of violent behaviour (Bond et al., 2004; Hoaken et al., 2003; Hoaken et al., 2007; Krakowski, 2003; Mednick & Kandel, 1988; Meyer-Lindenberg et al., 2006; Raine, 2008; Tremblay & Belchevski, 2004), there has been a severe lack of research conducted with the aim of determining specifically what trait aggression is and how it plays a role in aggressive behaviour.

Current understandings

It is hard to avoid the term trait aggression while reviewing the literature on violent behaviour. Despite the wide usage of the term, there does not seem to be a clear definition of trait aggression. With that being said, the de facto understanding of trait aggression is that it is a tendency toward aggressive behaviour. The problem with this understanding is that, since trait aggression is considered one of the leading factors of aggressive behaviour, it means that past aggression leads to future aggression, which, while logically and statistically valid, is a circular and generally unhelpful argument. In psychological research, "trait X" seems to refer to any character or personality trait without a clear origin. A few scholars have proposed an alternative to trait aggression called "trait selfcontrol" (Denson et al., 2012; DeWall et al., 2007). Unfortunately, this alternative terminology suffers from the same weaknesses as trait aggression as it is simply the positive form of trait aggression. The current author argues that calling emotional selfregulatory ability a personality or character trait is a mistake as it is a cognitive skill more than a tendency per se, and she rejects this terminology. Semantics and connotation are very important when communicating about human behaviour and cognition. The current understanding of trait aggression limits research on the causes of aggressive tendencies in an individual as it minimizes and neglects the role of emotion in violent behaviour. The proposed alternative to trait aggression is trait self-control, which is problematic because it describes emotional self-control as a personality/ character trait/tendency rather than a cognitive skill (which is much more teachable than a personality trait). People are not born with self-control; people learn self-control (Pan & Zhu, 2018; Pesce et al., 2021; Vazsonyi & Ksinan Jiskrova, 2018). Like most other things, this is probably easiest to "pick up" in childhood, but there is no reason that one cannot learn emotional self-regulation in adulthood with proper attention and effort (Duckworth, 2011; Hay & Forrest, 2006; Moffitt et al., 2013). We need to teach/train and encourage emotional coping skills and praise the effort required to use them if we hope to reduce reactive aggression in adulthood (Katz et al., 2020; Lauw et al., 2014).

Potential Treatment of Trait Aggression

As people age, personality and character traits tend to become increasingly resistant to change and outside influence (Specht, 2017; Specht et al., 2011). For this reason, aggressive trait, especially among repetitive adult offenders, may seem untreatable. This likely contributes to the paucity of research conducted on reducing trait aggression (as far as the author can find); there has only been research studying mitigators of trait aggression. These mitigators (e.g., executive functioning, impulse control, early trauma intervention, etc.) are often the tendencies cited when studying treatment for adults who have experienced trauma aimed at reducing post-traumatic stress disorder (PTSD) symptomology and preventing future reactive violence. Interestingly, almost all of the promising trauma-informed treatments focus more on emotional self-regulation rather than executive functioning and impulse control (Mavranezouli et al., 2020; Paivio et al., 2010; Yasinski et al., 2018). For example, Mavranezouli et al. (2020) conducted a meta -analysis assessing different treatment options for adults suffering with PTSD. The authors found that EMDR and TF-CBT were most effective at reducing PTSD symptomology, and both methods showed continued improvement following the end of treatment. Similarly, Yasinki et al. (2018) found that TF-CBT was the most effective treatment for transition aged youth/young adults (ages 15-25) diagnosed with PTSD. Furthermore, Paivio et al. (2010)show significant pre-test/post-test improvement in functioning and emotional adjustment for adult participants who underwent treatment. In this study, the authors found that EFTT was effective in treating negative emotional arousal (specifically anxiety and depression, which have been linked to increased family violence) and increasing self-esteem (low self-esteem has been shown to increase negative emotionality [Velotti et al., 2017]). While these therapeutic models were designed for use in patients with experiences of trauma, they may also prove to be valuable interventions for abusers with or without a history of trauma. This is because the mechanism underlying the model is more important than the original intent of the model. If poor emotional selfregulation is a major contributor to violent behaviour, then EMDR, TF-CBT, and EFTT may all be viable treatment options to prevent aggression by aiding in self-regulation emotional (further research required).

There has been less promising research on the effective treatment of adult batterers or otherwise reactively aggressive individuals (possibly due to the paucity of research on emotional regulation in adult populations). In a meta-analysis conducted by Babcock et al. (2004), the authors reviewed existing spousal regarding abuse literature treatment, specifically looking at the Duluth model (a program designed to reduce domestic violence against women) and CBT. The authors found that neither model showed statistically relevant success over the other and that neither treatment showed statistically relevant results overall. A potentially larger factor than the age of subjects, in this case, is the specific cognitions and emotions that were addressed. In their meta-analysis, Babcock et al. (2004) examined two major domestic violence treatment approaches, neither of which are trauma-focused and both of which center around cognition and behaviour rather than emotion. This contrasts with the more promising trauma-informed

studies, which have a predominant focus on emotional self-regulation and self-esteem. Following our understanding that trait aggression is an aggressive behaviour resulting from a failure to regulate negative affect, this relative failure in adult intervention of reactive aggression is clear and almost inevitable. We must always be cognizant of the role of emotional regulatory abilities and the discomfort of negative emotional arousal in individuals who tend toward reactive aggression (Bushman, 2002; Lahey et al., 1984).

The current understanding and acceptance of trait aggression have limited important research on the role of emotional self-regulation in reactive violent or aggressive behaviour. All personality and character traits are tendencies toward a certain type of behaviour even though the reason is not necessarily well defined. Behavioural traits likely have their roots in emotion and emotional processing and should be regarded as such (Paulhus et al., 2018). Past aggression tends to result in future aggressive behaviour because of a pervasive/consistent failure in regulating negative emotional experiences (Dankoski et al., 2006; Heleniak & McLaughlin, 2020; Siegel, 2013). Promising research regarding the treatment of childhood maltreatment (significantly related to future violence perpetration) tends to focus on emotional self -regulation and self-esteem, whereas the less promising research focuses on halting violent behaviour through cognitive/behavioural techniques alone (thus neglecting the role of emotions). The difference in effectiveness (as shown from the followups of the above treatment studies) seems intuitive given the strong role that emotional self-regulation plays in aggression and violence perpetration. Clinical interventions for adults exhibiting a tendency toward aggressive violence need to include a focus on promoting self-regulation and self-soothing instead of solely cognition and behaviour.

All these promising correlations warrant further research. While there has been a small amount of research conducted on the role of emotional control in aggressive behaviour, this research has had significant limitations. More rigorous research on this topic is not only warranted but also promising. It is especially promising given that if a strong link is empirically shown to exist, then pilot treatments can be tested. Furthermore, it is likely much easier to address negative affect and train emotional self-regulation than it is to change and remove a character trait from someone. Given the great potential to be able to prevent violence through emotionally focused tactics, it is unreasonable for this gap in research to continue.

Conclusion

While pattern violence and reactive aggression have been studied thoroughly in the last few decades, violent ideation vs. violent action has received very little scrutiny. In addition, trait aggression, in its common understanding, does not capture the complexity of the development of pattern aggression. Both topics have at least one common theme among them, and that is negative emotional arousal alongside poor emotional self-regulation. Poor self-control has been linked with both violent victimization and violent perpetration (Chen & Chu, 2021; Cooper et al., 2017; Reisig & Golladay, 2019). Furthermore, a focus on emotional self-regulation has been a differentiating factor in the success or failure of interventions for those involved in aggressive behaviour (both victim and perpetrator, as many perpetrators were once victims) (Mavranezouli et al., 2020; Paivio et al., 2010; Yasinski et al., 2018). This all suggests that trait aggression has a strong and wide-reaching basis in failed emotional self-regulation (at least with regards to reactive aggression).

In the meantime (while further research is being conducted), those who work/interact with reactively aggressive individuals should be cognizant of the factors contributing to reactive violence discussed in the current review. It should also be understood that reactive aggression is almost undeniably preceded by negative emotional arousal (Alesina et al., 2021; Briere & Spinazzola, 2005; Siegel, 2013). Negative emotional arousal is emotionally, psychologically, and even physically uncomfortable (Bushman, 2002; Lahey et al., 1984). Acting out aggressively as a reaction to this discomfort can function as venting and can provide temporary relief (Bushman, 2002). Once the perpetrator has calmed from their emotional arousal and violent action, they will (often) be able to recognize the negative (instrumental and/or relational) consequences of their actions and, so long as they have the capacity for empathy, they will likely experience regret, remorse, and even shame (Weiss-Klayman et al., 2020).

If one can remain aware of the above general narrative, they can take action to mitigate and prevent reactive aggression. As previously seen, if someone is prone to reactive aggression, they likely experience a greater level of baseline negative affect than most and another person negatively challenging their negative experience (i.e., through judgment) tends to lead to more reactive aggression (Alesina et al., 2021; Briere & Spinazzola, 2005; Siegel, 2013). Those most prone to reactive aggression must be treated with compassion and patience in order to build the capacity to encourage the use of emotional self-regulation in place of violence or aggression. It is essential to remain aware of the fact that, in the short term, learning positive forms of coping through self-

regulation with negative emotional arousal can be deeply uncomfortable and much more difficult than coping with outward displays of violence and aggression. Hopefully, with time and further research, we will have a better understanding of the role of emotional arousal in reactive aggression, which those in contact with aggressors and their victims could use to reduce reactive aggression (especially schoolteachers, recreation leaders/coaches, and emergency room personal).

The present article also suffers from several significant limitations. First, the population of interest is broad. The current review includes studies focused on adults in a variety of contexts, including adult abusers, adults with a history of child abuse, couples, etc. This allowed for a more comprehensive overview aggression but severely limits of trait generalizability of the present findings. Furthermore, the keywords used in the database search, as well as the timeframe chosen does not cover all literature on violence and aggressive behaviour. Despite these significant limitations, the current article remains informative regarding the potential misemphasis on trait aggression and offers valuable implications for clinical practice.

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