



EMOTIONAL REGULATION ON NEGATIVE AFFECT AND AGGRESSION: A REVIEW

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Abstract

The frustration-aggression theorists generally posit aggression based on the influence of negative emotion or affect. Recently, investigation on the principles that influence the tendencies for aggressive responses play out in the mediating pathway, with the context that negative affect may or may not directly lead to aggression. Within the exploration at modifying the frustration-aggression concept, emotional regulation is an identified mechanism that buffers aggression resulting from negative emotional experiences. In turn, this has challenged the traditional frustration-aggression theory that indicates frustration (negative affect) does not always lead to aggression, in the case where the intense emotion from the relevant external situation has a chance to be modulated. However, little studies have documented the role of emotional regulation on negative affect and aggression. Therefore, this paper presents the nature of negative affect and emotional regulation strategies on aggression, while relating their pathway based on the contemporary General Aggression Model (GAM). We utilised the Google Scholar as the database in locating the relevant articles, with the terms focused on “Emotional Regulation” AND “Negative Affect” OR “Negative Mood” OR “Negative Emotion” AND “Aggression”. Reviews on the past studies that have investigated the role of emotional regulation on the relationship between aspects of negative affect and aggression are also discussed. Emotional regulation has been consistently identified as an important mechanism that mediates the effect on negative emotional state on aggressive behaviours. Future studies are suggested to further investigate the inherent strategies of emotional regulation and taps into different forms of negative affect, besides anger, on aggression.

Keywords: Emotional Regulation, Negative Affect, Aggression, General Aggression Model

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INTRODUCTION

Humans everyday undergo different experiences where their internal process works in relation to the perceived situations. As our overall functioning is modified by our aspects of physiological, behavioural, cognitive, and emotional (Gross & Thompson 2007), this should explain why the functioning levels in human beings are remarkably complex, which also affected both the short-term reaction and long-term process related to the adaptation on new circumstances and their implications (Kállay & Benga, 2009). A person's affective response or emotions characterised by a person's evaluation of positive and negative sides of an experience that can vary in their intensity, duration and frequency is also referred to as mood states (Jazaieri, Urry & Gross, 2013). Negative affect, on the other hand, refers to the extent of a person feeling upset or unpleasantly aroused (Watson & Tellegen, 1985). Aggression is conceptualised as any occurring behaviour when an individual has an immediate intention to harm another person, including to protect oneself from receiving similar treatment (Baron, 1977). From the frustration-aggression theorists, at least it has been generally understood that frustration, or feelings of anger and outbursts when an individual's goal is being blocked leads to aggressive behaviour. A few studies back then identified the relationship between negative affect and aggressive behaviour among adolescent conduct disorder which predicts later antisocial personality disorder (Krueger, 1999; Rothbart et al., 1994). As the new ideology later appears, aggressive behaviours were then conceptualised as not being the immediate result of frustration (Bandura; 1973; Buss, 1963).

Bushman and Anderson (2001) has proposed that aggression should be explained in multiple factors that drive aggressive behaviours. A contemporary model known as the General Aggression Model (GAM) is an integrative approach that includes domain specific theories focusing on three interactive elements; (i) *inputs* (personal and situational factors), (ii) *routes* (internal state formed by inter-related affect, cognitions, and arousal), and (iii) *outcomes* (appraisal that later determines the presence or absence of aggression; Anderson & Bushman, 2002; Gutiérrez-Cobo, 2018). As all three factors are interrelated, therefore, an individual's tendency to behave aggressively is strongly influenced by all components in each stage. Under the GAM, negative affect, perceived as an individual's negative internal state is included in the second stage of GAM which is influenced by the Stage 1- situational or personal factors (Ebesutani, Kim & Young, 2014). According to Gutiérrez-Cobo (2018), negative affect should be in the second stage of the GAM because it is not understood as a mechanism that is continuously being activated, rather is generally perceived as a trait-like variable. Therefore, negativity will not always be seen on a person who has higher negative affect scores, but he or she has a higher likelihood of negative state experience triggered by an unpleasant situation as compared to an individual with lower negative affect (Gutiérrez-Cobo, 2018).

Ochsner and Gross (2005) has mentioned the ability to control emotions as an important aspect of adaptation within a person's life. This is known as the emotional regulation which refers to the management of reactions that is seen as appropriate to provide comfort and security within intra-personal and inter-personal functioning (Kállay & Benga, 2009). Given the nature of emotion within a person, emotional regulation interferes in looking at how the individual experiences or expresses this emotion (Jazaieri et al. 2013). Since emotion regulation is well-understood as a complex mechanism within the human emotional functioning, researchers have approached emotional regulations in different perspectives that surrounded issues related to coping, defence, appraisal, along with distinguished terms under the same umbrella of emotional regulation such as affect regulation, emotional control, and emotion management (Cole, Martin & Dennis 2004; Kállay & Benga, 2009). Gross and Thompson (2007) has addressed the core features of emotional regulation that should be highlighted. Having said

that, the first feature refers to the regulation of positive or negative emotions, whereby the intensity or period of the emotions that an individual experienced is either being increased or decreased. The second feature explains that while emotion regulation is seen as an internal process and works on the conscious awareness, it can also occur within the unconscious. As one's type of emotion is known to be affected by emotional regulation, it involves the altering of emotion orientation, by which managing the emotion works on wanting to change one or more emotions directly (Jazaieri et al. 2013).

In a sample of university students, Megías et al., (2018) reported lower aggression among individuals who can manage their emotion better. Recently in 2015, Garcia-Sancho and colleagues studied the relationship between anger rumination, aggression, and the ability of managing emotions, in which the findings proposed that an individual's subjective feelings, characterised by anger or general negative affect influences one's appraisal. This means that the way a person perceives a certain negative experience, for instance, interferes on whether the unpleasant internal feelings would result in aggressive responses, or the other way around. These recent findings have shed new light into investigating additional mechanisms in the nature underlying the association between negative affect and aggression. Where there are positive or negative experiences resulting from negative affect, emotional regulation comes into picture (Gross, 1998).

Based on the GAM, the branch that perceive emotions (personal factor) which reflects individual's ability to recognise other's emotion is included in the first stage, while the managing branch that facilitate emotional state regulation in producing non-aggressive responses should be in the final stage of GAM model (Gutiérrez-Cobo, 2018). The emotional regulation has been studied as a predictor of aggression in different populations (Garofalo et al., 2015; Maldonado, DiLilo & Hoffman, 2014; Pond, Jr. et al., 2012). The studies that include emotional regulation has been suggested to be beneficial in explaining the tendency of aggressive behaviours. For example, Garofalo et al., (2015) found that violent offenders having low self-esteem and aggressive responses are significantly mediated by emotional regulation. Emotional regulation is also considered significant for anger control, which plays a role in impulsivity inhibition that further facilitates goal-directed behaviour (Gratz & Tull, 2010). Furthermore, effective emotional regulation strategies have been indicated as an important feature to be targeted for aggression-risk behaviours among intimate partners (Maldonado et al., 2014).

The term "emotional regulation" has been studied by recent scholars, challenging the notion that aggressive behaviours are caused by frustration (negative affect) which has been established by the early frustration-aggression theorists. When a negative affect is present, a person's dysregulation of emotion leads to aggressive tendencies that are detrimental and has also been related to the occurrence of pathological conditions (Donahue et al., 2014). However, the role of emotional regulation on the relationship between negative affect and aggression is still demanding for further exploration as there has been little studies identified to explain this triad (Donahue et al., 2014). Attention shifted at studying the inability to control emotion (or emotional dysregulation) has elicited an understanding of reinforced aggression. Nevertheless, the gaps that existed between the research surround the appropriate way of studying emotional regulation, i.e., either general or constructive mechanisms. In addition, in the form of constructive emotional regulation, discrepancies existed between the effects of cognitive reappraisal and expressive suppression styles in reducing negative affect and eventually, aggression. Therefore, this paper attempts to broaden the literature context by providing better understanding on the indirect relationship between emotional regulation, negative affect, and aggression. By incorporating the General Aggression Model, this review supports the recent model of explaining the influence of emotional control on behavioural responses under the presence of negative emotional state.

RESULTS AND DISCUSSION

Negative Affect and Aggression

Adaptation, characterised by the evaluative result of internal and external stimuli is explained by the subjective perceptions that influence these changes, known as emotions (Denollet, Nyklíček, & Vingerhoets 2008). Emotions, when utilised properly can facilitate balance in adaptive functioning of an individual, while effectively communicating our intentions or internal states to other people (Diamond & Aspinwall 2003; Frijda 1986). Therefore, emotions can also be categorised as affect, which includes moods, emotions and stress that produces responses (Gross & Thompson, 2007). Negative affect especially creates a predisposition of affective states that are aversive, characterised by emotions such as anger, anxiety, fear, disgust, and shame (Watson, Clark & Tellegen, 1988).

Negative affect and aggression in adults have been well-established in past research (Barlett & Anderson 2012; Miller, Zeicher & Wilson 2012; Miller & Lynam 2006), in which elevated negative affect was found to elicit higher aggression (Chester, Merwin & Dewart, 2015; Fettich et al., 2015; Shorey et al., 2015). A study investigating aggressive tendencies among youth revealed that the experience of negative affect, categorised into anxiety and depression through violence exposure plays a significant influence in the development of aggression (Ebesutani et al., 2014). Elevated levels of depression and anxiety correlate significantly with physical and relational aggression, which affects social relationship with peers (Salaam & Mounts, 2016). Mesurado, Vidal and Mestre (2018) later conducted a longitudinal study to evaluate the direct effect of negative emotions in the form of anger, anxiety, and depression on prosocial and aggressive behaviour. With aggression measured through the Physical and Verbal Aggression Scale, depression and anxiety however did not report a direct relationship towards aggressiveness, except for anger. Further, the presentation of hostility rooted in anger provided insights into the pertinence of anger management as it may determine the extent of aggressive behaviours (Roberts, Strayer & Denham, 2014). In an earlier analysis, Ganem (2010) meanwhile suggested to look at the variance of negative emotions, aside from anger that solicited aggression. This author highlighted tapping into negative emotion based on strain, on the notion that different strain types, i.e., stress can elicit various negativity in emotions that leads to distinct aggressive behaviours. Under the umbrella of negative emotions, other studies looked at shame as the internalising symptoms that can drive aggressiveness (Elison, Garofalo & Velotti, 2014; Tangney, Stuewig & Martinez, 2014).

Despite the evidence that shows positive association between negative affect and aggression, Megías et al., (2018) found a negative correlation between negative affect and aggression among women, although the female participants were initially presented with higher negative affect levels compared to men. As a matter of fact, an individual's increased ability at perceiving emotion reduces the level of aggression. Therefore, even in the presence of negative effect within an individual, finding from this study has in turn suggested that another variable has moderated the effect of negative emotional state which could explain such finding, and that variable refers to that person's ability to regulate his or her emotion. Males with higher difficulties for emotional regulation displayed increased aggression towards their intimate partner compared to those who were able to effectively perceive and manage their emotions (Shorey et al., 2015), which plays out in male's lack of awareness for emotional experience in such situation postulated from higher magnitude of negative affect (Donahue et al., 2014).

Negative Affect and Emotional Regulation

The Emotional Regulation Process model by Gross (1998) is noted as the most widely adopted in researchers concerning the process of managing emotions. As emotional regulation is encompassed within the influence of

emotional experience and how an individual expresses this emotion, the process of emotional regulation focuses on the intrinsic strategies that are either antecedent-focused or response-focused (Gross 1998). Antecedent-focused refers to the regulatory strategies before the emotional response is fully developed, i.e., cognitive change (*cognitive reappraisal*). On the other hand, response-focused strategy refers to the experiential discrete emotions, in which the expression of emotion is being inhibited (*expressive suppression*).

While there are two dimensions of emotional regulation being introduced, response-focused strategy is considered not to be effective within the Gross model (Gross, 2001). Other studies have also supported this by showing that cognitive reappraisal is viewed as a more adaptive strategy in producing more positive outcomes, as compared to expressive suppression that is often related to negative social consequences (Dan-Glaue & Gross, 2011; Gross, 2002; Robertson, Daferm & Bucks., 2012). Similarly, an experimental study by John and Gross (2004) found that not only cognitive reappraisal contributed to the fluctuation of negative affect, but it also enhances the positive emotions. On the other hand, inhibiting emotional experience (expressive suppression) was less effective in alleviating negative emotions and further maintains the negative affect in response to depressive symptoms triggered by situational life events (Scott et al., 2015).

Suppression, with further rumination considerably relates to psychopathological conditions (Aldao & Nolen-Hoeksema, 2012). Consistently, an increased use of expressive suppression has also been reported to exacerbate the symptoms of depression among individuals suffering from psychological disorders (Larsen et al., 2012). Meanwhile, a strong positive correlation was also exhibited between emotional suppression and anxiety (Bloch et al., 2010). Kállay (2009) further supported that a larger intensity of negative mood states, coupled with ineffective emotional regulation strategies are associated with various psychiatric conditions. All these findings have suggested that negative affect, when left untreated may lead to severe distress and impact an individual's life significantly. Despite being seen as normal to have a negative mood, it can still affect people's daily functioning.

Despite the cognitive suppression has been considered as a more effective strategy in relative to expressive suppression, several findings were documenting on the contrary when significant relationship was not found between cognitive reappraisal and negative affect (Brans et al., 2013; Nezlek, 2007). Not only that cognitive reappraisal could not decrease the negative affect in university students who reported their emotional state 10 times a day for a week, but it also appears as the least used strategy among others being investigated, i.e., rumination, suppression, distraction, social sharing, and reflection (Brans et al., 2013). As a matter of fact, Rogier, Garofalo and Velotti (2017) suggested that the utilisation of suppression strategy among male participants may not always be non-adaptive as it negatively correlated with aggression, anger, and hostility, provided if the presence of suppression level is high. In line with these findings, Brockman et al. (2016) established a relationship between cognitive reappraisal on daily positive, but not the negative affect. Within their study, the use of cognitive reappraisal strategy did not increase during the period when individuals faced lower levels of negative affect, which is proven from the reported decreased negative affect in approximately half of the participants, while increased negative affect was displayed from the remaining half. Although Brockman and colleagues (2016) justified the importance of seeing no good or bad emotional regulation strategies, a strong relationship in fact still exists between cognitive reappraisal and daily positive affect as it facilitates on the maintenance of daily positive affect experience, rather than regulating activated extreme negative emotions per se.

Emotional Regulation and Aggression

Analysis that investigated the impact of aggressive tendencies based on the differential strategies between

reappraisal and suppression have found that reappraisal is more likely to act as an effective force in inhibiting aggression, while expressive suppression that focuses on concealing negative affect, i.e., anger increases the occurrence of aggression (Scott et al., 2015). A study comparing the cognitive reappraisal and expressive suppression within the context of anger have found that reappraisal strategy improves physiological anger-induced responses and provides greater adaptability in anger-provoking situations (Denson, Grisham & Moulds, 2011). Higher availability of cognitive resources was also associated with cognitive reappraisal under the umbrella of intact executive functioning which facilitates individuals' control over impulsivity for improved social relationships (Franchow & Suchy, 2015), while anger rumination also decreased through reappraisal after exposure towards anger-inducing memory (Denson, Moulds & Grisham, 2012), all of which reduced the risk for aggressive behaviours.

Conversely, while individuals actively try to inhibit emotionally expressive behaviour through expressive suppression (Gross & Levenson, 1993), it requires substantial individual's personal resources, i.e., effort, energy, and duration in their attempt to escape unpleasant emotions or experiences (Kashdan et al., 2006). If he or she is involved in a less meaningful thought process (Ward et al., 2008), this can in turn expose the individual towards the risks of physical and social consequences (Quartana & Burns, 2007; Butler, Lee & Gross, 2007). On the other hand, emotional suppression is associated with higher opportunity for increased physiological arousal (Butler et al., 2003), as it stimulates the energy which can reinforce action response associated with aggressive behaviour (Anderson & Bushman, 2002; Zillman, 1983).

The functionality aspect of emotional regulation has also been investigated under the nature of physiological responses related to aggressive behaviour. In an experimental study by Denson et al., (2011), undergraduate participants were instructed to suppress, reappraise, or watch the video as usual following exposure to anger-inducing video. The finding from this study has contributed to the biological representation of emotional regulation after cognitive reappraisal was found to be significantly related with greater heart rate variability, indicating adaptive emotional regulation. This result is also aligned with another earlier study that concluded the association between lesser anger and more adaptive cardiovascular reaction towards the use of cognitive reappraisal strategy following experience towards anger-provoking situations (Mausse et al., 2007).

Does Emotional Regulation Mediate Negative Affect and Aggression?

Aggression, at least from its traditional perspective of frustration-aggression theory has established that a person's feelings of anger, frustration and outbursts elicits aggression as it is perceived as difficulties in goal-directed behaviour. However, the aggressive behaviours as viewed from the recent ideology were then conceptualised as not being the immediate result of frustration. This in a way suggested that a person's negative experience is being modulated by an additional mechanism which does not necessarily lead towards aggressive responses. More studies have supported a strong interaction between negative affect, i.e., anger on aggressive behaviours within the difficulties in regulating emotions (Kuzucu, 2016; Liable et al., 2010; McLaughlin et al., 2011). When there is a deficit in regulation, anger rumination can cause proactive aggression (White & Turner, 2014). These authors' findings concluded that our internal feelings, such as anger or even negative affect in general can be influenced by our appraisal towards the relevant experience.

As mentioned, despite emotional regulation being under-researched, several studies have highlighted the role of controlling emotions, which explains in efficacy towards reducing aggressive tendencies resulting from negative affect or mood. Regulation of emotion has been regarded as an important aspect in emotional experience

of an individual. While it has been proven that frustration as the result of negative mood states does not always cause aggressive behaviours, how a person controls their emotions are being emphasised as an aspect of adaptation, whereby improved emotional regulation strategies may undermine the association between negative mood states and aggression (Pond, Jr. et al., 2012). Since it is known that there is a close link between anger and poor strategies of emotional regulation, Pond, Jr. et al., (2012) conducted three different studies on how emotion differentiation can moderate aggression when a person is angry. In his cross-sectional, mixed method studies using daily diary analysis, as well as measurements including Positive and Negative Affect Schedule (PANAS) and Aggression Questionnaire (AQ), he proved the hypothesis that the ability to differentiate emotion leads to lesser aggressive behaviour in people. For an individual who can differentiate emotion well, the findings showed that less provocation has been reported, while their tendency towards committing aggression daily is also lower than those who do not have a good capability to regulate their emotions. On top of that, Pond, Jr. et al., (2012) also found that controlling emotion is a mediator between negative affect, specifically anger and aggression. The findings from his study specially have contributed towards how aggressiveness is weakened by emotional regulation resulting from negative mood.

The dysregulation of emotion also plays out in individual's inability for emotional recognition and awareness, such that a person who is unable to characterise one's own emotions exacerbate the difficulties at emotion management. Emotion, which is supposed to provide adequate information for behavioural guidance, regulation, and control in situational and contextual demands (Baumeister et al., 2007; Gohm & Clore, 2002) conflicted with individual's limited access to emotions, as well as increasing the likelihood for maladaptive behavioural responses in emotionally provocative situations (Zaki et al., 2013). Edwards & Wupperman (2016) investigated the mediating effect of emotional regulation on aggression during negative emotional state, by also looking at the relationship effect imposed from low emotional differentiation. Through their findings, the deficit in emotion-processing possessed an independently substantial contribution towards the role of emotional regulation on impulsive aggression. Similarly, Velotti et al., (2016) in their study involving community and psychiatric samples proved that individuals who are unaware of their emotional state also have reduced ability at controlling emotions and subsequently relate to aggressive tendencies, with aggression being more highly reported in the psychiatric than community samples. These findings suggest that the nature in the interrelation between negative affect and aggression is not simply managed by individual's ability to regulate emotions, but also whether the individual is able to enter the state of emotional awareness as a precursor in making sense of their emotional experience before the effective management of emotions can take place.

Researchers have also found that the difficulties in regulating emotion have an influence on an individual's propensity towards impulsivity. From the sample of young adults, measures of affect intensity (The Affect Intensity Measure; AIM) and emotional dysregulation (Difficulties in Emotion Regulation Scale; DERS) reported an indirect effect of emotional dysregulation on the participant's drinking to cope with intense negative emotions (Veilleux et al. 2014). In a bootstrapping analysis involving 566 college students, the lack of clarity in emotional experiences and regulation strategies influenced individual's drinking as a form of coping. While this study may have significantly contributed towards the importance of identifying emotions and teaching emotional regulation skills, it is important to note other affective factors that reinforced maladaptive coping, such as alexithymia, distress tolerance, anxieties, and cognitive abilities at emotional control (Veilleux et al., 2014).

Questions evolved around whether aggression makes people feel better. Many people are found to engage in aggressive behaviour when they expect that feelings of irritability and anger will go away by doing so. Bushman,

Baumeister and Philipps (2001) reported five different studies to explore mood states and aggressive responding when the opportunity for emotional regulation is present. From these studies, it was found that participants who believe aggression would result in catharsis showed more aggressive responses and venting towards receiving criticism, as well as for people who have been reported to have high anger-out tendencies. These findings have in turn suggested that when the affect (emotion) regulation is ineffective, there is a high likelihood for individuals to behave aggressively.

Relational aggression has been associated with behavioural problems not only in young children and adolescents, but also among emerging adults (Crick et al. 2006), which is predisposed by trait anger that is elevated (Hicks 2018). While emotion regulation is supposed to contribute to the interplay between trait anger and relational aggression, the study by Hicks (2018) however has found that difficulties in emotional control did not interfere in the relationship between trait anger and relational aggression. One of the reasons that should explain these contrary findings is the usage of more general measures of emotion regulation which in turn have limited the evaluation of emotion regulation in different settings (Hicks 2018), which should be a concern that should be tapped and improved for future studies. Previous notion that suggested the utility of studying individual's emotional regulation generally, i.e., the adaptive or maladaptive styles instead of the constructive approach (Robertson et al., 2014) has also contradicted with the present finding which demands for further exploration.

Multiple facets surrounding emotional regulation (or dysregulation) have been identified by several previous studies. Donahue et al. (2014) has portrayed the relationship between different influencing aspects of emotional dysregulation. Emotional dysregulation, being understood as the inability to control negative emotion was found to fully mediate the relationship between negative and physical aggression. It is important to note about the several features of emotional dysregulation. Aspects such as emotional clarity, awareness, strategies, and acceptance are commonly reported, with some additional influencing factors such as impulse, goals and non-acceptance (Donahue et al. 2014; Robertson, Daffern & Bucks 2014).

Furthermore, factors such as early maltreatment in children were examined by Kim-Spoon, Cicchetti and Rogosh (2013). Within a longitudinal study involving children aged 7 to 10 years, the effect of emotional regulation and emotion lability-negativity was tested within three (3) different timeframes that observed the latent change between these two variables on internalising symptomatology changes. As a result, this study has shown that emotional regulation was a significant mediator between emotion lability-negativity and internalizing symptoms and supported that experiencing maltreatment at an early age contributed remarkably towards poor emotional control. Children with especially high emotional lability-negativity were more likely to develop internalising symptomatology (Kim-Spoon et al., 2013).

Table 1: Summary of findings on the Mediating Role of Emotional Regulation

Author(s)	Objective	Study Design	Outcome Measures	Findings
Edwards & Wupperman (2016)	Exploring the mediating role of emotional regulation based on restricted access to	Quantitative, cross-sectional design	<ul style="list-style-type: none"> Emotion Differentiation Written Exercise Positive and Affective 	Deficits in emotion information-processing ability under negative emotional state influences aggressive tendencies, which is

	emotional information under negative state on aggression.		<ul style="list-style-type: none"> Negative Schedule (PANAS) Toronto Alexithymia Scale (TAS) Difficulties in Emotion Regulation Scale (DERS) 	mediated by emotional regulation.
Donahue et al. (2014)	Investigating the multiple aspects of emotion dysregulation on aggression in the presence of negative affect between gender.	Cross-sectional design	<ul style="list-style-type: none"> Assessing emotion dysregulation; Difficulties in Emotion Regulation Scale (DERS) Emotional experience dimensions; Positive and Negative Affect Schedule (PANAS) Traits of aggression; Aggression Questionnaire (AQ) 	<ul style="list-style-type: none"> The relationship between negative affect and physical aggression is fully mediated by emotion dysregulation in both males and females. The mediation effect for emotional awareness is only reported for males.
Hicks (2018)	Investigating the role of emotional regulation on trait anger and relational aggression.	Quantitative, cross-sectional study	<ul style="list-style-type: none"> Difficulties in Emotion Regulation Scale (DERS) Self-report of Aggression and Social Behaviour Measure (SRASBM) Buss-Perry Aggression Questionnaire (AQ) Positive and Negative 	<ul style="list-style-type: none"> Accounting for general negative affect, trait anger and relational aggression is not affected by difficulties in regulating emotions.

			Affect Schedule (PANAS)	
Kim-Spoon, Cicchetti & Rogosch (2013)	Investigating the relationship between emotion lability-negativity and internalizing symptomatology among maltreated and non-maltreated children	Cross-sectional design	<ul style="list-style-type: none"> • Maltreatment Classification System • Emotion-Regulation Checklist (ERC) • Teacher's Report Form (TRF) 	<ul style="list-style-type: none"> • Emotion lability-negativity and internalizing symptoms were mediated by emotional regulation. • Early maltreatment and high emotion lability-negativity are represented by children aged 7 years, with poor emotion regulation (age 8) and increased internalizing symptoms (age 8 to 9).
Pond, Jr. et al. (2011)	Conducted three diary studies to determine that emotion differentiation mediated the relationship between negative affect (anger) on aggression.	Cross-sectional, mixed-method design	<ul style="list-style-type: none"> • Negative emotion differentiation; Positive and Negative Affect Schedule (PANAS). • Intensity of daily anger experience; Diary record of feelings and behaviours for three times per within 25 days. • Tendencies of aggression; Aggression 	<ul style="list-style-type: none"> • Study 1: When angry, lesser aggressive tendencies were reported in participants with high emotion differentiation. • Study 2: The presence of daily provocation and anger does not cause immediate aggression for participants with high emotion differentiation.

			Questionnaire (AQ)	<ul style="list-style-type: none"> Study 3: The relationship between anger and aggression is mediated by emotion control.
Veilleux et al. (2014)	Examining the influence of negative affect and drinking to cope via emotion dysregulation.	Cross-sectional design	<ul style="list-style-type: none"> The Alcohol Use Disorders Identification Test (AUDIT) The Affect Intensity Measure (AIM) The Difficulties with Emotion Regulation Scale (DERS) 	<ul style="list-style-type: none"> Participants with poor emotional regulation have a high tendency towards drinking to cope due to intense negative emotions.
Velotti et al., (2016)	Investigating the association between alexithymia, impulsivity, emotional dysregulation and aggression between community and psychiatric populations.	Cross-sectional design	<ul style="list-style-type: none"> The Toronto Alexithymia Scale-20 (TAS-20) The Difficulties in Emotion Regulation Scale (DERS) Barratt Impulsivity Scale-11 (BIS-11) Buss and Perry Aggression Questionnaire (AQ) Brief Symptom Inventory (BSI) 	<ul style="list-style-type: none"> Higher levels of alexithymia, emotion dysregulation, trait impulsivity and aggression were found in the clinical psychiatric samples than the community samples.

CONCLUSION

At least observable changes are seen on the conceptualisation of negative affect and aggression that challenges the traditional perspective on studying the nature of frustration-aggression. Research involving aggressive behaviours

have regarded the role of emotional regulation which has been identified as an additional mechanism that involves in the interplay underlying negative affect and aggression issues. Therefore, this paper has reviewed some studies that explored the association of emotional control on negative affect and aggression. Within the inconsistencies of findings on the influence of emotional regulation, more studies should be conducted to investigate the extent of emotional regulation in modulating the emotional experience of individuals with respect to the relevant stimuli. Furthermore, studies should also tap further on the best approach to investigate the nature of emotional regulation and the strategies, as to provide broader context of review within the topic of emotional regulation and aggression, while broadening the negative affect other than anger to look at its reciprocal influence on one another.

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