Parental Anger Socialization and its Influence on Child Anger Regulation: The Roles of Culture and Child Characteristics

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Abstract: Parental emotion socialization plays a critical role on children’s emotion regulation that ultimately can influence children’s mental health and social competence. By adopting an emotion-specific approach, this paper reviewed the effects of parents’ anger regulation and expression, reactions to children’s anger and coaching and discussion of children’s anger on the development of children’s anger regulation. Further reviews regarding the impact of culture, children’s age, gender and temperament on parental anger socialization was conducted to thoroughly understand the influence of parental anger socialization on children’s anger regulation. Additionally, several methodological issues regarding the measurement of anger regulation and anger socialization in developmental studies have been addressed. Consideration of these issues in future emotion socialization research will contribute significantly to a better understanding of the mechanisms involved in children's development of optimal emotion regulation capacities.

Key words: Emotion socialization • Anger • Emotion Regulation • Culture • Age • Gender • Temperament

INTRODUCTION

The development of emotion regulation skills has been linked to a variety of child outcomes, including better peer relationships [1, 2], better social adjustment [3], less emotional and behavioral problems [4] and less child psychopathology [5]. Although many factors can influence children’s emotion regulation, parental emotion socialization is believed to play an important role [6, 7]. Eisenberg et al. [6] identified three major ways through which parents socialize children’s emotions: parents’ regulation and expression of their own emotions; parents’ reactions to children’s emotions; and parents’ coaching and discussion of children’s emotions. Additionally, it is argued that parents adopt different socializing strategies depending on the types of emotions they are socializing; thus it is necessary to examine socialization and its outcomes based on discrete emotions [8].

In this review, we examined parental socialization of anger and its impact on children’s regulation of anger. First, we explained the definition of emotion regulation and emotion socialization from a functionalist perspective. Next, we presented the reasons for adopting an emotion-specific approach (i.e., examining anger socialization and anger regulation rather than aggregating all negative or positive emotions). Additionally, guided by Belsky’s three-categorical determinants of parenting (i.e., parent characteristics, contextual factors and child characteristics), [9] we extended the discussion of children’s anger regulation beyond the influence of parental anger socialization by incorporating cultural influences and children’s characteristics (e.g., age, gender and temperament). By doing so, we emphasized two points that have often been less noticed in emotion socialization research: (1) Culture influences emotional experience and expression [10, 11]; parental emotion socialization, children’s reactivity to these socializing strategies and the meaning and displaying rules of a specific emotion are not independent from the influences of the broader context, so we needed to consider the significance of culture [12, 13]. (2) Emotion socialization is a reciprocal process [14], so we needed to consider the bidirectional influences within parent-child dyads.

Emotion Regulation: Even though no consensus on a definition has been achieved, emotion regulation has been widely conceptualized as the internal and external processes involved in initiating, maintaining and...
modulating the occurrence, intensity and expression of emotions [15, 16]. Internal processes refer to the psychological processes within the child that are employed to manage emotions. External processes refer to the external influences, such as parents and other socializing agents, who help the child regulate emotions or develop the skills needed to modulate his or her emotions [17]. Emotion regulation can also be understood from a functionalist perspective. The functionalist theories on emotions regard emotions as regulators of social interactions, so emotions can establish, maintain or disrupt (i.e., regulate) the relation between the individual and his/her environment [18]. Thus, emotion regulation becomes an integral part of the experience of emotion and it serves to coordinate with one’s goals and monitor the effects of one’s behavior on the physical and social world [19]. Moreover, the functionalist perspective on emotion regulation emphasizes the social context that elicited the need for regulation and specified the rules of conduct [19] thus regulation/dysregulation should be considered along with both the consequences and the social context for that emotion. For example, anger dysregulation does not simply imply a state in which a child is being very angry or habitually holding back anger. Instead, it connotes the formation of an enduring anger response system that leads the child to express or experience anger in inappropriate contexts [20]. Thus, when the deviations of anger response are not appropriate for a certain context and interfere with children’s behavior and psychological functioning, we then consider such behavior as a sign of anger dysregulation. Therefore, we determine whether anger is regulated or not mainly based on its effect on children’s functioning in their social context. Thus, it is believed that children achieve adaptive ways of regulating emotional responses mainly through the process of emotion socialization.

**Emotion Socialization:** Emotion socialization refers to ways in which children learn from others about aspects of emotions [21] and it emphasizes the social process that shapes the growth and development of emotion in children. There are three primary modes of socialization: (1) children witness others’ feelings and emotions, (2) children have their own emotional display responded to, (3) children are taught about their feelings and emotions [21]. Moreover, meanings of emotions and appropriateness of emotional expression are socialized primarily via the interactions within families, especially in the early years of children’s life [8]. For example, infants depend on caregivers for soothing anger and allaying fear because they were born with only rudimentary capacities to manage the very basic emotions. In this case, caregivers’ soothing behaviors are considered the earliest form of emotion socialization. Although children acquire more self-regulatory capacities along with their growing neurobiological changes in emotion control, they still need other agents to help manage emotions (e.g., seeking comfort or support from parents when distressed or anxious). Additionally, other agents’ behaviors and responses may influence or shape children’s emotions as well as their future responses under similar emotion-evoking situations. For example, studies have consistently shown that if parents regard children’s expression of negative emotions as an opportunity to teach children to cope with negative emotions, these children are presumed to gain better emotional awareness and understanding, which in turn promote better emotion regulation abilities [6, 22]. Because emotions are ubiquitous in human activities and all human beings live within certain social contexts, socialization of emotions can remain influential on one’s emotion regulation skills throughout one’s life.

**Emotion-Specific Approach**

**The Unique Contribution of Anger:** In addition to pursuing a better understanding on the development of anger, there are three reasons to take an emotion-specific approach: (1) Anger is activated by different neurobiological systems than other negative emotions and children temperamentally vary in sensitivity to these systems [23]. (2) Different emotions serve different functions; children’s anger regulation can maintain good social relationships and psychological wellbeing [5, 24] and an appropriate level of parental anger facilitates parental discipline [25] and provides opportunities for parents to teach children how to regulate their anger [22]. (3) Parents may respond differently to children’s expression of anger compared to their expression of other less provocative emotions such as sadness and fear [26] and these differential socializing strategies may have different impact on children’s regulation of different emotions [27].

First, studies showed that anger is regulated by the approach system, which implies an active force against the target that has elicited anger [28]. Specifically, there are two neurobiological systems that underlie affective and behavioral response tendencies. One system is called the Behavioral Approach System (BAS; [29]); it is responsible for approach and positive affect. EEG and neuroimaging data indicate that approach of incentives
tends to relate to higher relative activation in the area of the left prefrontal cerebral cortex, suggesting that the circuitry underlying the approach is partially localized in these areas [30, 31]. The other system is called the Behavioral Inhibition System (BIS; [29]); it is activated by the perception of threat and thus leads to withdrawal affect and behavior. EEG and neuroimaging data indicate that the presence of threats tends to relate to higher relative activation in areas of the right prefrontal cortex, suggesting that circuitry underlying inhibition is partially localized in these areas [30, 31]. Children presumably vary in sensitivity to BAS and BIS; children high in BAS sensitivity tend to engage in more approach behavior and positive affect than those low in BAS sensitivity given cues of incentives whereas children high in BIS sensitivity tend to engage in more avoidant behavior and anxious affect than those low in BIS sensitivity given cues of threat [32].

Recent findings from neuroimaging studies went further and challenged the common assumption that BIS guides all negative emotions and BAS guides all positive emotions. They found although sharing the same valence, anger is associated more with the approach system whereas another negative emotion (e.g., fear) is mainly associated with the inhibition system [33, 34]. This may result from the fact that fear is activated with threatening stimuli thus may lead to inhibition and avoidance. However, anger is activated by the blockage of a desired goal or the disruption of a condition that person believes ought to exist [35]. Because these activating mechanisms of anger imply an effort to approach rather than avoidance, it is assumed greater social and psychological costs result from anger dysregulation.

Second, the functionalist perspective on emotions emphasizes the unique contributions of anger to children’s development. On the one hand, anger regulation serves to maintain a good relationship with peers and teachings. Studies have consistently shown that less angry children were preferred and perceived as socially competent by peers and teachers in preschool and elementary school [36].

On the other hand, anger is one of the most reported emotions during parental discipline [25], suggesting more opportunities for parents to socialize anger within family settings. However, frequent and intense parental anger may harm children’s psychological and physical wellbeing [37] and such excessive anger may even lead to parental abusive behaviors [38]. Conversely, some parents may stereotypically consider expression of anger as part of negative parenting and assume that negative emotions such as anger are associated with negative parenting outcomes which may result in never expressing anger in families. Actually, a moderate level of anger is needed to promote parental discipline because it teaches children whether their behaviors are unacceptable thus warranting a change [25] and provides opportunities for parents to teach children how to regulate anger [22].

Third, some studies have suggested that parental emotion-related socializing strategies might influence children’s regulation of specific emotions differently, again, suggesting an emotion-specific approach to study emotion socialization and socializing outcomes. For example, Cole et al. [39] examined parents’ immediate responses to preschoolers’ experience of negative emotions (anger and sadness) as an index of emotion socialization. Children, accompanied by their mothers, were exposed to two situations that are supposed to elicit anger and sadness respectively and they were later asked to provide regulatory strategies for the “sad” and “angry” puppets after interacting with their mothers. Children who received more maternal support and understanding in the anger scenario were able to offer more strategies for the puppet to “cope with” anger than children with mothers who showed less supportiveness to children’s anger. However, children offered a similar number of strategies for the puppet to “cope with” its sadness regardless of how mothers reacted to children’s sadness. These findings indicated that the same socializing strategies (i.e., supportive response to children’s negative emotions) could lead to different emotional outcomes depending on what types of emotions are being socialized. Thus, the study emphasized the importance of examining the socialization outcome of specific emotions rather than aggregating all negative or positive emotions in socialization research. Therefore, all the above findings have stressed the importance of examining anger within families and the need to establish an emotion-specific model to examine emotion socialization and its outcomes.

**Parental Anger Socialization:** As mentioned above, Eisenberg et al. [6] identified three ways that parents socialize children’s emotions which can be summarized as modeling (parents’ regulation and expression of their own emotions), contingent reactions (parents’ reactions to children’s emotions) and teaching (parents’ coaching and discussion of children’s emotions). Additionally, it is believed that these mechanisms of emotion socialization are mainly influenced by parents’ meta-emotion philosophy, a concept that Gottman et al. [22] defined as parents’ organized feelings and thoughts about their own
emotions as well as their children’s emotions. For example, if parents regard anger as bad or socially undesirable, they may tend to avoid conversations about anger or even punish an angry child [40]. If, on the contrary, parents consider anger an opportunity for emotion socialization, they may be interested in learning why the child is getting angry and how to help the child to cope with anger. Therefore, it is generally believed that parents who consider anger to be a socializing opportunity are more likely to adopt coaching strategies. These parents appear to have insight into their children’s emotional experiences as well as their own, regulate their emotional reactions to children’s affective experiences, communicate empathic concern and understanding and help their children to find the most constructive way to manage emotional situations [41]. However, those parents who regard anger as undesirable are more likely to adopt dismissing strategies. These parents may attempt to protect their children from experiencing any negative emotions and/or even feel distressed by their children’s negative emotions, thus discouraging children’s emotional introspection [22].

Parents’ Anger Regulation and Expression:
The essential element in anger socialization is parents’ own responses to anger-provoking events. Parents’ propensity to experience and express anger provides a learning opportunity for children to cope with anger-elicitng objects or incidents. Besides, how parents regulate their own anger may contribute to determining the emotional climate of family life and may also influence the parent-child relationship, which in turn may also shape the way in which children regulate their anger [42]. Thus, both direct and indirect effects of parental anger regulation influence children’s anger regulation.

First, it is believed that parents’ regulation of anger takes direct effect on children’s anger regulation through the mechanism of modeling [43, 44]. According to the social referencing theory, children learn from their parents about how to respond, think and feel about events or stimuli [45]. The expression of anger within the family unit affords children the opportunity to witness parents’ anger and evaluate the responses parents receive after their display of anger [8]. Thus, parents’ inappropriate expression of anger is more likely to lead their children to misinterpret environmental cues or increase children’s propensity to react to objects or others in a hostile way. For example, Katz [46] found in families where parents often overly express their anger, over time, children may develop an anger-sensitive system. This heightened response system easily triggers child anger whenever there are higher levels of emotional arousal (such as in situations of conflict). Additionally, anger is believed to have higher rates of contagion [47]. parents who frequently show anger might be more likely to have an anger-prone child. Thus, parental modeling effects mainly take effect on children’s anger regulation schemas through social referencing and contingency of anger [17].

Second, parents’ regulation and expression of anger can also take indirect effect on children’s anger regulation through its impact on the family emotional environment and parent-child relationship [48, 49, 50]. It is hypothesized that a more hostile family emotional environment as well as a less secure parent-child relationship may be more likely to undermine a child’s emotion regulatory capacities [42]. For example, parents who frequently displayed intense anger (e.g., parents often angrily yell at each other) may make families full of conflict and stress and some found that children who grew up in such an environment tend to respond in anger (e.g., yelling) whenever they do not know how to respond to a situation [51]. Thus, children’s family emotional environment can also consolidate or jeopardize the child anger-regulatory system.

In addition, parents’ anger regulation and expression may also influence the parent-child attachment relationship, which, in turn, may be associated with the development of anger regulation in children [42, 52]. The preliminary evidence indicated that insecurely attached children progressively showed greater anger from age 1 to 3 [53] and adopted less constructive anger-management strategies at age 3.5 years old [54], whereas securely attached children did better at managing negative emotions including anger [55].

Parents’ Reactions to Children’s Anger: Parental reactions to children’s emotions, especially to children’s negative emotions, are probably the most well examined emotion-related socializing practice in the literature. This may be because parental reactions to children’s negative emotions are considered an important and direct way to socialize children’s emotion regulation and expression [6].

Parental reactions to children’s anger are often dichotomized into supportive (e.g., warm, sensitive) and unsupportive (e.g., punitive, restrictive, minimizing) types of responses. Supportive responses to anger involve comforting an angry child, determining the causes of child anger and encouraging the child to express their anger if it is appropriate. Supportive reactions are hypothesized to predict better emotional outcomes in children because
such reactions can enable children to accept and learn to manage their own anger through modeling and coaching [22]. Moreover, supportive responses to anger can also promote the parent-child relationship, which in turn fosters children’s emotional security [56] thereby promoting better child emotion regulation as previously discussed. A great deal of evidence has shown a positive association between supportiveness to anger and better child anger regulation in preschoolers [57]. Additionally, parental encouragement of anger expression can help preschoolers generate more strategies for regulating anger [51]. However, few studies have investigated the relationship between parents’ responses to children’s anger and children’s emotional outcomes beyond the preschool period. These few studies provided some evidence that parental supportiveness to children’s expression of negative emotions may lead to negative outcomes for older children as well [58]. Therefore, more studies with children who are during their middle-childhood or preadolescence are needed in order to determine how far-reaching the effects of parental supportive reactions on children’s anger regulation become as children progress beyond their early childhood.

Additionally, parental unsupportive responses to children’s anger have often been categorized into active unsupportiveness (i.e., punitive and restrictive responses) and withdrawal unsupportiveness (i.e., dismissing). Active unsupportiveness is believed to undermine children’s emotional coping strategies [7, 59]. For example, Berlin and Cassidy [60] showed children’s tendency to overly suppress anger if their mothers reported active efforts to restrict children’s negative emotions. Moreover, children who internalized anger because of parents’ unsupportive responses were found to show over sensitized reactions (escape or revenge-seeking) to other anger-evoking contexts [61]. Therefore, it seems that parents’ punitive and restrictive reactions (i.e., active unsupportiveness) to children’s anger undermine children’s anger regulation through distorting their physiological and cognitive reactivity to anger-provoking events.

However, the results of the withdrawal type of unsupportive responses to anger are not as clear as those of active unsupportiveness. Some studies found maternal dismissing response to children’s anger heightened children’s level of anger displayed during interaction [44]. In other cases, however, such minimization was linked to more passive child emotion regulation strategies such as inhibiting anger [62]. The ambiguity regarding the impact of parental minimizing responses to child anger thus warrants further examination. One possible explanation for such mixed findings is that the relationship between parental unsupportive responses and child emotional outcomes may be moderated by factors outside of parental anger socialization (e.g., culture and child characteristics), which will be discussed soon.

Parents’ Coaching and Discussion of Children’s Anger:

Parents’ discussion about children’s anger is considered another major way that parents can actively shape children’s anger regulation. As mentioned previously, parents who often conduct thoughtful and sensitive emotional conversions with their children are considered as adopting coaching strategies [22]. Studies with younger children consistently supported the hypothesis that children with parents who adopted coaching strategies in response to preschoolers’ anger had better emotion regulation skills [63] as well as lower teacher-rated internalizing problems and lower mother-rated total behavior problems [64]. Although less examined, such an association has also been found with older children who are in their middle childhood years [65], suggesting the possible age continuity on the link between parents’ coaching philosophies regarding anger and better child outcomes.

Other than meta-emotion philosophies, researchers have also examined parents’ coaching and discussion about anger through real-time parent-child conversations [63]. For example, Zeman et al. [41] investigated the effect of conversation patterns among parents and preschoolers’ conflict resolution; they found parents who used more negative words during a conversation about anger engaged in less coaching responses and the discussions took longer to reach a sense of resolution. This study suggested that the length of emotion-related conversations is not as important as the nature of the conversations (i.e., coaching or dismissing). This is because the coaching conversations are crucial, for they provide an important context for parents to coach children about how to regulate anger [22] and they also offer children opportunities to understand their own anger (as well as that of others) and the psychological processes associated with anger. Gradually, children can develop their own insights about anger, which in turn will be used to form children’s anger regulation system. However, because such insights are usually difficult for younger children to comprehend independently or gain through more subtle avenues [42], parental coaching discussion about anger provides a direct and valuable way for children (especially younger ones) to develop their own anger regulation repertoire.
Cultural Factors and Child Characteristics: Although parents can socialize children’s anger on modeling, contingent reactions and teaching ways, these anger-related socializing practices can also be influenced by cultural factors and child characteristics. First, culture can influence the way in which emotional competence is defined thus influences the way individuals experience and express anger [66]. In addition, socialization of anger is bidirectional that each child’s characteristics also contribute actively to this process [14]. Therefore, it is critical to examine the roles of culture and child characteristics on the relationship between parental anger socialization and child anger regulation.

Culture: People from different fields define culture differently. A widely accepted definition of culture in emotion socialization research is that culture consists of the shared principles that guide shared customs that are transmitted intergenerationally, although individuals of a culture may vary in the extent to which they subscribe to those shared principles and customs [14]. Although Eisenberg et al. [6] included cultural factors in examining emotion socialization, most findings have been based on single culture factor, such as middle-class and upper middle-class European American parents [21]. Thus, it is suggested that researchers explore and compare a broad range of cultural groups [44]. In this review, three aspects of cultural influences are emphasized: (1) What levels (e.g., ideology, country, ethnicity or community) are appropriate for measuring cultural influences on parental anger socialization? (2) What is the pathway through which culture influences parental anger socialization? (3) How culture’s differential impact on parental anger socialization can be explored?

Levels of examination. First, we need to identify what levels are appropriate for measuring anger socialization processes that happen within cultural contexts. Previous research investigating cultural impact on emotion socialization mostly followed Triandis’s cultural orientation model by dichotomizing cultural groups into the so-called individualistic or collectivistic ones [67]. For example, studies showed that in several countries where people predominantly adopt individualistic beliefs (e.g., America, German and Australia), parents generally encourage the expression of “ego-focused” emotion such as anger because it promotes self-assertion in which they value [68], whereas in other so-called collectivistic countries (e.g., China and Japan), parents generally strictly control children’s expression of anger because it is against social harmony in which they value [69]. By following Triandis’s model, we have formed a basic impression on how parents from different cultural backgrounds would react to children’s expression of anger. However, it is important to note that in some cases this model may oversimplify the construct of culture and assign stereotypical and static characteristics to people within a certain culture. Consequently, research that has been guided by this ideologically dichotomizing model may fail to capture the similarities across collectivistic and individualistic groups as well as overestimate the similarities within each group.

Specifically, we have acknowledged that caregivers around the globe share the goal to raise children to become competent in their communities [70]. However, communities’ standards and definitions for emotional competence are determined by various factors; single factor such as the ideological difference (e.g., western mothers vs. eastern mothers) cannot differentiate people’s values on emotional competence. For example, Chuang [71] compared socialization goals of American middle-class mothers with Chinese middle-class mothers. They found both groups of mothers encouraged children’s self-expression including appropriate levels of negative emotions to promote individuality. This similarity between the socialization goals of American and Chinese middle-class mothers may be explained by the fact that although two groups came from so-called different cultural orientations, they shared other cultural similarities (e.g., two groups have similar levels of education or SES in their own countries) and those factors can influence the way they socialize children’s negative emotions. Thus, the influence of social economic status might sometimes override the influence of cultural ideology, suggesting it is important to consider both distal and proximal cultural factors and avoid formation of any stereotypical assumptions.

Recognizing the importance of expanding levels of examination when investigating cultural impact on emotion socialization, researchers have explored the role of culture beyond the dichotomous ideological model. A well-known example is Cole and colleagues’ studies in Nepal [27]. In this study, they examined cultural variations in meanings and socialization beliefs of anger in two ethnic groups of Nepal. They found the high-caste Brahman children in Nepal, whose communities emphasize respect for authority, would not reveal anger to an authority figure. In contrast, Tamang children in Nepal, whose communities view anger as wrong and interfering with social harmony, mostly tend to inhibit anger. This study supported the notion that even within the same country, processes and outcomes of anger socialization could be different across various ethnic groups.
Additionally, Lunkenheimer et al. [65] found less educated Caucasian mothers were less likely to provide coaching strategies when their children became angry than their well-educated Caucasian counterparts. Cunningham et al. [64] showed the similar finding in their studies with African American mothers. In addition, Raval and Martini [72] found Hindu caste Indian mothers who lived in the older cities were more likely to restrict their own and their children’s anger expression than those mothers who lived in the suburban areas. Together, these studies that investigated culture’s role in emotion socialization on other levels (e.g., ethnicity and SES; education level; neighborhood environment) have challenged the collectivistic-individualistic model by showing that it may sometimes overlook the complexity of culture.

Furthermore, researchers have also begun to simultaneously include multiple cultural indices (e.g., family income, education level, neighborhood quality) in examination [7]. For example, Shaffer et al. [7] grouped several cultural indices and examined their impact on parental emotion socialization. They first created a family risk index that includes single parent status, crowded household, less maternal education, low income and more maternal psychological stress and then related this risk index to parental responses to children’s negative emotion regulation abilities. Future research can also take multiple cultural indices into consideration when examining cultural impact on parental emotion socialization and child emotion regulation.

Identification of pathway. Second, we need to identify the pathway through which culture influences parental emotion socialization. It is generally believed that culture influences parental anger socialization through its impact on parental beliefs and socialization goals. However, we are not clear on the mechanisms through which it takes effect. Two major trends of theories have debated with each other and tried to elucidate the pathway. One theory [6] has proposed that culture shapes parental emotion-related socializing behaviors mainly through the mediating role of parental beliefs and socialization goals (i.e., culture influences parental beliefs and socialization goals, which in turn influences parental behaviors). The other theory [14] hypothesized that the influence of culture on emotion socialization takes effect through its interactions with parental beliefs and socialization goals, suggesting a moderating approach (i.e., culture influences parental emotion socialization indirectly through its impact on parental beliefs and socialization goals, in other words, how much culture can impact emotion socialization depends on how much it fits or does not fit with parental beliefs or socialization goals).

Because the differences in conceptualizing the impact of culture on emotion socialization have various implications for research measurement, analysis and interpretation, which in turn can influence social and educational policy, it is crucial to design culturally sensitive studies and determine whether parental socialization is mediating or moderating the effect of culture [73]. Recently, several studies have begun to instigate on this question [44, 74]. For example, Brown et al. [73] examined parental socializing behaviors among African American, European American and Native American parents. Results showed that ethnicity moderated the gender differences in parents’ emotion socialization such that fathers reported more negative expressiveness than mothers in native families whereas mothers reported more supportive reactions than fathers among European and Native Americans. It would be optimal if future studies can replicate this examination and provide more evidence to determine which model is more useful.

Exploration of Cultural Impact: Finally, we focus on how researchers can explore cultural differences on anger socialization. Because a powerful analysis regarding cultural impact often requires a huge sample size that is not easily approachable, this methodological difficulty as well as the research gaps among different regions and countries has limited studies investigating cultural variations of parental emotion socialization into two main approaches.

One approach compares findings from different cultural groups (e.g., differentiated by SES or ethnicity) in the United States. For example, some studies showed mothers from the United States urban working-class and mothers from some low-income minority groups reported more open anger toward their children compared to their typically studied Caucasian middle-class counterparts [75]. Researchers explained that the heightened level of anger found in low-income families might be because those parents aimed to “toughen” their children or prepare them to be compliant when interacting with the majority culture [76]. However, Garner [77] found that low-income African American mothers’ reported discouragement of emotion was associated with children’s decreased knowledge about anger. Therefore, it is unclear whether the “toughening” strategies adopted
by many low-income parents (e.g., discouragement of negative emotions) have more positive effect (e.g., children are better prepared for a dangerous nationhood) or more negative effect (e.g., children have less knowledge about anger). Nevertheless, despite this ambiguity, it is generally hypothesized that parents who adopt socialization practices that are commensurate with their own cultural values would benefit their children’s emotion regulation abilities [66]. However, as previously mentioned, it is often hard to determine what cultural values one predominantly adopts (e.g., the neighborhood values, the ethnic values, or the social-class values?). Thus, studies aim to replicate these results are highly encouraged.

The other approach generally examined the difference between American mother-child dyads and those in other countries, such as in China, Japan and other Asian countries (e.g., differentiated by cultural orientation, [13, 69]. For example, Wang [69] found emotion coaching (e.g., explaining to children the causes of their anger) improved European American children’s emotion regulation, whereas emotion training (e.g., teaching children rules of anger-feeling) facilitated Chinese children’s emotional regulation. Additionally, although not designed as a cultural comparison study, Tao, Zhou and Wang [70] found no correlation between Chinese parents’ minimizing reactions to children’s anger and children’s decreased emotion regulation abilities, which was often found with Western samples [75]. This difference between findings with Chinese and American samples may result from the differential cultural values regarding anger expression at the larger ideological level. Specifically, contrary to the western views of anger expression, traditional Chinese culture placed a high value on anger inhibition, thus minimization of children’s anger (e.g., telling children “It is not a big deal, don’t think about it”) may sometimes help children adjust well to emotion-laden situations [70]. However, this conclusion on cultural variation should be interpreted and generalized with caution because neither study has been designed in a culture-comparison way, nor no other cultural indices (e.g., SES, education) have been controlled or compared. Further studies that are designed in a way that can compare different cultural groups as well as cooperation across communities, ethnicities and even countries are greatly needed.

In sum, based on the potential role of culture in investigating the relationship between parental anger-related socialization and children’s anger regulation, two aspects are emphasized. First, when examining the roles of parental socialization strategies on children’s emotion regulation, researchers should pay attention on whether these socialization strategies are commensurate with parental socialization goals that reflect their cultural values [78]. Second, when designing studies to investigate cultural variations of parental emotion socialization and children’s emotion regulation, the within-group differences, the cross-group similarities as well as changes within certain cultures must be carefully addressed [12]. This goal can be achieved by including more cultural indices (e.g., nation, ethnicity, level of acculturation, SES and educational background) in a comparison model as well as stating what level of “culture” one is measuring. These approaches will allow us to interpret and generalize research findings more confidently and also help us better understand the dynamics of cultural influence on emotion socialization and emotion regulation.

Child Characteristics: Besides culture may influence parental anger-related socializing strategies, factors within the child also play important roles in this socialization process [14, 73]. Because children are not passive agents who wait to be socialized and form the ability to regulate anger accordingly which making parental anger socialization as a dynamic and bidirectional process. Thus, it is proposed that children’s age or maturation, gender and temperament also affect the relationship between parental anger socialization and children’s anger regulation.

Child Age: Parental emotion-related socialization starts as early as in infancy [21]. The influence of children’s age on parental emotion socialization and children’s emotion regulation can be generally summarized into three ways. First, child’s age influences the timing and choice of parental emotion socialization. Specifically, parents generally tolerate anger/distress in younger children, but they engage in more discussions about anger with older children [26]. This is because children are expected to require less external support for emotion regulation and to demonstrate increasing emotional knowledge and independent regulation of emotions [79]. Second, child’s age also takes effect through its interactions with cultural beliefs, child emotion-related skills as well as child’s speed in acquiring such skills [80]. For example, as children grow older, their decision on whether to express anger moves beyond the scope of parent’s socialization to children’s own analysis of meaningful information about said norms and situational costs. Additionally, researchers have proposed that children’s language development along with age may not only influence
parents’ emotional conversation with them, but it may also influence children’s emotion regulation skills [81]. Specifically, this study showed that 4 year-olds recognized and generated strategies for anger (but not for sadness) more than 3-year-olds, suggesting from age 3 to 4, there might be some critical change for a child’s development of anger-related knowledge (e.g., development of emotion language and advancement of intellectual and cognitive abilities), which in turn, promotes their skills in anger regulation. Third, age reflects the accumulation of anger regulation experience and anger socialization history. Evidence for age-related increases in number and type of anger regulation strategies has been shown in children’s first 5 years [82], suggesting a decrease in the frequency, intensity and duration of anger with the increase of age.

However, although researchers have recognized these effects of child age on parental anger socialization and children’s anger regulation, little research has been done to further test whether age also changes the pathway through which children’s anger regulation influences the relationship between parental anger socialization and children’s behavioral outcomes. Given the importance to better understand the function of emotion regulation for children at different ages, further studies are highly encouraged to find models that are appropriate for different age groups, thus to identify risk and resilience factors for children at their various developmental stages.

Child Gender: Child gender is another factor that can influence parental anger socialization and its outcomes [83]. Along with the proliferation of research on emotion socialization and regulation, many findings have suggested examine child gender and its impact on anger socialization in two ways: (1) Whether parents would adopt differential anger socialization strategies for boys and girls according to their cultural view of anger, (2) Whether boys and girls have differential reactivity to parental anger socialization.

For the first line of research, findings are mixed in terms of gender’s influence on parental anger socialization practices. Some found gender has no effect on parents’ emotion-related socialization [84, 85], whereas majority of studies showed anger is more tolerated in boys but not in girls [86]. A caveat is studies that did not show any differential parental emotion-related socializing practices typically examined parents’ responses to general emotions or combined discrete emotions into one category [86].

Furthermore, parental differential socializing strategies for sons’ and daughters’ anger found in most studies may be due to the notion that socialization of emotions are linked to the cultural norms regarding masculinity and femininity of specific emotions [87]. In many cultures (e.g., North American culture), parents often encourage anger expression in boys because parents believe such expression help to support autonomy and dominance; traits stereotypically associated with male gender roles. Similarly, parents are less tolerant of anger expression in girls because anger is considered conflicting with affiliation and nurturance; traits stereotypically attached to female gender roles [88]. Therefore, these cultures view expression of anger to be non feminine and it appears that children can understand these rules early in life and gradually express or inhibit anger accordingly (i.e., girls may try to inhibit anger more than the boys do in these cultures). Additionally, parents in these cultures also adopt these cultural views and consider anger more acceptable in boys than in girls [88]. They may thus respond differently to boys’ and girls’ anger expression. Therefore, this might be the reason that a great deal of empirical studies in the United States showed that parents reported that they expected girls to inhibit angry responses more than boys [89].

Moreover, it is argued that girls are at a disadvantageous position regardless of whether their parents adopt gender-typed socialization practices [89]. Specifically, for girls who usually suppress anger due to gender-typed parental anger socialization, there may be an elevated level of physiological arousal [90] and non-adaptive expressions of emotion, such as the subtle transmission of anger to relational aggression [91]. However, girls whose anger is socialized similarly with that of boys by their parents may express anger more freely than typically expected and are more likely to be falsely identified as having an anger dysregulation issue compared to their male counterparts. Therefore, the gender-stereotypical view of anger expression seems to negatively affect girls on either familial or social level.

On the other hand, although some parents do not adopt differential anger socialization practices based on children’s gender, boys and girls may react differently to parental socialization. This is because anger socialization is a dynamic process and it is often not how parents socialize anger per se that determines the outcome but how the child perceives parents’ socializing practices. However, similar to gender’s effect on parental anger socialization, findings on gender’s effect on children’s reactivity to parental anger socialization are also
ambiguous. For example, Hughes and Dunn [92] found girls showed greater differentiation in their explanations of the causes of anger; Cunningham et al. [64] found parental socialization practices affected African American boys and girls differently in terms of their anger regulation skills and behavioral outcomes. In contrast, Shield and Cicchetti [93] found no gender variations in preschoolers’ regulation of anger.

These mixed findings should be interpreted with caution. First, most studies did not control for parental strategies in anger socialization; the detected gender effect may result primarily from differential parental anger socialization strategies for boys and girls. Second, these studies were conducted with different age groups; future research should consider the interaction of gender and age in order to fully understand gender’s role in anger regulation. Third, these studies examined multiple aspects of emotional competence (emotional competence includes emotion regulation, emotion knowledge and emotion understanding). It is unclear whether it is the case that gender has an impact on one aspect of children’s emotional competence but not others.

Temperament (negative emotionality/irritable distress). Another child characteristic that can influence anger socialization is child temperament. Temperament generally refers to relatively early-appearing and stable individual differences in emotional reactivity and self-regulation [94]. Although researchers have not reached a consensus on taxonomy of temperament, Bates and Petit [95] have suggested five dimensions that seem the most useful at the current time based on research findings and factor analyses. These five dimensions are positive emotionality, irritable distress, fearful distress, effortful control and adaptability/agreeableness.

Theoretically, it is believed that child temperament can influence emotion socialization and its outcomes in three ways. First, child temperament can bias a child’s developmental trajectory. For example, irritable distress (often described as negative emotionality) is one of the defining features of reactivity and temperamentally reactive children are found to respond to limitations with anger and distress [96]. Additionally, these children who are highly reactive and have strong disposition to respond negatively and aggressively are found to be at elevated risk of developing conduct problems [97], as well as other externalizing and internalizing behavioral problems [98].

Second, a child’s temperament can influence parental socialization practices. Highly reactive children may elicit differential parental socialization strategies compared with non-reactive children [99]. For example, some studies found parents responded to children’s anger and distress in a more nurturing way if they had children with strong negative emotionality [100]. Others showed contradictory findings in which parents responded more negatively to anger-prone children [101]. Such mixed results regarding the association between negative emotionality and anger-related socialization practice may be due to differential parental expectations for children at their various developmental stages and differential cultural tolerance of anger, harsh parenting and negative emotionality. For example, if parents come from a culture that has a higher level of tolerance for anger and for negative emotionality but a lower level of tolerance for harsh parenting, they may be more likely to encourage children’s anger expression and show supportiveness for children in distress. In this case, children’s negative emotionality may positively influence parental anger socialization practices. In contrast, if parents come from a culture that is less tolerant of anger and irritable temperament but emphasizes parental discipline, parents may respond more strictly to anger tantrum of older children due to their heightened expectation for children’s self-regulation that is commensurate with their cultural values. Thus, it is suggested that researchers consider cultural backgrounds and parental expectations when interpreting the association between children’s negative emotionality and parents’ socialization of anger.

Last but not least, child temperament can interact with parental socialization and the interaction has an impact on child outcomes [102]. For example, Morris et al. [102] found that children with mothers who responded harshly to their emotions developed more externalizing behavior problems if they also scored high in negative emotionality. Similarly, children who were high in negative emotionality reported more anger if their mothers also showed overt hostility (e.g., putting down children’s comments) at home; and these temperamentally reactive children developed more internalizing problems if their mothers also adopted unsupportive emotion socialization practices. Their findings suggest it is not child temperament, or parental strategies per se, determine parental socialization and socialization outcomes, but rather the association between temperament and socialization practice.

In conclusion, future research can elucidate the relationships among negative emotionality, parental anger socialization and children’s anger regulation; and it can also undermine the deterministic view of children’s temperament, which often considers children with negative emotionality as doomed to fail to regulate emotions.
CONCLUSIONS

Although emotional arousal and emotion expression have a biological basis [103], children’s emotions are influenced by direct or indirect messages from their parents. This review discussed the ways children’s emotions are socialized through parental influence (i.e., through the way parents respond to children’s emotions, model emotional expression or teach children about aspects of emotions). Additionally, cultural factors and child characteristics were integrated into the discussion, emphasizing the fact that emotion socialization is a bidirectional process that is subject to the influence of culture. Based on this review, several methodological suggestions and advocate more theoretical considerations are emphasized on studies about parental emotion socialization and child emotion regulation.

Methodological Suggestions: The field needs more accurate assessment tools to measure constructs such as anger socialization and anger regulation for different age groups. In addition, measuring these variables from multiple aspects and analyzing data strategically would also be helpful in advancing our knowledge in this area. Previous studies have mostly relied on the self-report method [14, 73]. Although the self-report approach is quick and inexpensive and has been argued to be useful for assessing general tendencies of an individual, it is often subject to the influence of social desirability. Moreover, parents might have limited access to children’s emotion information, so parental reports of children’s anger are only their subjective perceptions of children’s anger regulation. Similarly, because emotion is a subjective experience and therefore even adults are unable to report emotional experiences objectively, the information obtained from children’s self-reports on their own anger regulation can also be problematic. As a result, evidence from studies that have heavily relied on self-report measures should be cautiously interpreted.

Moreover, recognizing that studies are often limited by recall-bias and are not well suited to address how emotions and behaviors change over time and across context [104], the field has paid increasing attention to real-time measurement (e.g., laboratory parent-child interactions and ecological momentary assessment, [63]). However, although laboratory observations have some advantages over self-reports (e.g., displaying behavioral snap shots of what the individual actually do rather than what they think they would do), the results from observational coding often reflect each coder’s subjective interpretation and children’s emotional responses to situations may be consciously modified because they are aware of being observed, this is especially true for older children. Based on these limitations, Ecological momentary assessment (EMA) has been introduced to the studies on emotion socialization and emotion regulation. EMA involves repeated sampling of subjects’ current behaviors and experience in real time and in the subjects’ natural environment and it often utilizes technologies ranging from written diaries and telephones to electronic diaries and physiological sensors [104] that can record parents and children’s interactions in their natural settings. It would be optimal to synthesize multiple measurements (e.g., self-report, laboratory interaction and EMA), which might free us from the restrictions of learning parental anger socialization from parents’ own reflections and which might also provide us with more information on how parents socialize anger during real interactions. Additionally, it might also be helpful to employ more objective measures for emotion regulation. One way to obtain objective data of general emotion arousal is to incorporate physiological measures (e.g., heart rate reactivity and sympathetic nervous system responses) because emotion has often been associated with physiological arousal.

Future Directions: In addition to implementing better assessment and analytic tools, future studies should also consider cooperation in examining cultural effect as well as introducing other theoretically relevant variables in emotion socialization studies. First, given the less-examined nature of cultural aspects of emotion socialization, studies on different communities, regions and even countries are highly encouraged. By doing so, researchers will be able to identify culturally meaningful principles through which emotion socialization operates and to recognize that measures and constructs in one culture may not be generalized to others. Moreover, the majority of socialization studies have been conducted with mothers and little has been done with fathers; thus we do not clearly understand how fathers socialize children’s anger, nor do we know whether outcomes that resulted from maternal and paternal anger socialization differ. However, mothers and fathers are believed to follow different culturally approved gender roles and lead functionally different emotional lives (e.g., in many cultures, mothers express emotions that support relationship enhancement and fathers express emotions...
that support assertive goals), so we would expect mothers and fathers to be different socializers of emotions [40, 57]. Therefore, future studies that adopt both dyadic (father and child) and triadic (father, mother and child) approaches are needed for theoretical and applied considerations.

Moreover, parental characteristics (e.g., mental health, personality, childhood history) may also influence parents’ emotion-related socialization as well as children’s anger regulation and behavior outcomes [105, 106]. Similar to father’s role in emotion socialization, parental characteristics is another emerging area that warrants thorough examination. Future research should incorporate these variables (e.g., maternal depression, maternal neurotic personality and maternal childhood maltreatment) so as to better understand how these proximal factors contribute to parental practice and child development.

Lastly, although researchers have begun to apply more work on children who are in their middle childhood or early adolescent years, to date most empirical literature on the topic of emotion socialization has been focused on the infant through early childhood years [63, 105]. Thus, it is my hope that this context-sensitive and emotion-specific developmental model can provide guidance for future investigations on children throughout their developmental stage, thus enriching our understandings of anger within family settings. Finally, as emphasized previously, socialization and regulation of fear, sadness, shame, guilt and the less-examined area of positive emotions also merit comprehensive investigation.

REFERENCES


