

Original Article

The study of relationship between maternal reactions to children's negative emotions and children's social skills: The role of mediational emotion regulation

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Abstract

Introduction: Differences in emotional control and social skills appear to partially reflect differences in longstanding intrapersonal qualities, such as temperament. However, parenting characteristics also have emerged as indicators of how children develop emotional and social competence.

Methods: The study design was correlational. The sample size was 60 children in preschool age (30 boys and 30 girls) and their mothers (60 females) were selected using convenience sampling. Among children were registered for preschool in a private school. Instruments were used in this study include: Coping with Children's Negative Emotions Scale (CCNES), Behavior Rating Inventory of Executive Functioning (BRIEF), Social Skills Rating System (SSRS). Data were analyzed using simple regression and structural equation modeling (SEM).

Results: Data analysis showed that children's emotion regulation skills predicted their social skill levels ($F=69.98, p=0.0001$) and total maternal emotion socialization predicted children's emotion regulation ($F=98.15, p=0.0001$) and children's social skills ($F=39.45, p=0.0001$). Other result was children's emotion regulation skills completely mediated relation between reactions to children's negative emotions and children's social skills.

Conclusions: This research highlighted the important impact of emotion-related parenting behaviors and beliefs on children's development of social and emotional competence.

Declaration of Interest: None.

Key words: Emotions, Social Skill, child.

Introduction

Differences in emotional control and social skills appear to partially reflect differences in longstanding intrapersonal qualities, such as temperament (1-2). However, parenting characteristics also have emerged as indicators of how children develop emotional and social competence (3-6). Several theorists have highlighted the important impact of emotion-related parenting behaviors and beliefs on children's development of social and emotional competence (3,7-8).

Emotion socialization is the process through which children develop emotion-related beliefs, values, and expressive behaviors through their interactions with others (9). Maternal reaction to Children's emotion effects on children's emotion regulation (10-12). Namely, emotion socialization is one process through which children can develop emotional competence (13).

It is believed that children learn emotion regulation skills through interactions with their caregivers and other highly significant people in their lives (14-18).

Research has revealed a strong link between mothers' reactions to children's negative emotions and children's development of social competence. Specifically, unsupportive maternal reactions were linked to more behavioral problems and less empathic and social responsiveness (11-12,19,21) while supportive maternal reactions were linked to better perspective-taking skills, higher empathy and sympathy for others, and more positive relations with peers (11,20). Emotion-focused parental reactions were associated with higher rates of cooperative behaviors in children (11,20). It is believed that the ability to regulate one's own emotion to match societal standards and to respond empathically to others' emotions is necessary to be able to engage in successful social interactions (3,22-26). Links also have been shown between children's emotion regulation skills and their friendliness (27-29), cooperativeness (26-27), non-aggressiveness and non-oppositional behavior (27), social competence (29), prosocial behavior (22, 28- 29), assertion (27), self-control (26), and the tendency to initiate social interactions (22). It is often theorized that the link between parental emotion socialization behaviors and children's social skills is mediated by the children's emotion regulation capacities (8,29). The ability to control their emotional reactions increases their ability to attend to the messages their parents are sending them about appropriate social behavior because they are less likely to be over-aroused during episodes of discipline, which is when most of this type of teaching occurs. Children with emotion regulation skills can inhibit negative emotions that commonly fuel antisocial actions, which could challenge prosocial actions (30). Eisenberg, Fabes, Shepard, Guthrie, Murphy and Reiser (1999) found that children of mothers who responded to their negative emotions in a punitive manner or with personal distress displayed more disruptive behavior with peers and adults, and this relation was partially mediated by poor emotion regulation skills (31). Eisenberg, Cumberland and Spinrad (1998) proposed a model of the links between parental emotion socialization (i.e., emotion-related parenting practices) and child outcomes (8). The components of Eisenberg and colleagues' model that are examined in this study are parental reactions to children's negative emotions have been shown to predict children's emotion regulation skills (10-

12) and children's social skills (29). Children's emotion regulation skills also have been shown to mediate the relation between parental reactions to children's negative emotions and children's social skills (31-33).

This research investigated that maternal reactions to children's negative emotions, socialization predict children's emotion regulation and children's social skills. Also, it investigated that children's emotion regulation predict children's social skills. In addition, in this research emotion regulation was assessed as an mediator of the association between maternal reactions to children's negative emotions and children's social skills.

Methods

The study design was correlational. The sample size was 60 children in preschool age (30 boys and 30 girls) and their mothers (60 females) were selected using convenience sampling. Among children were registered for preschool in a private school.

Instruments used in this study include:

Coping with Children's Negative Emotions Scale (CCNES). Mothers completed the Coping with Children's Negative Emotions Scale (CCNES) (16) to assess their typical reactions to their children's expression of negative emotions. Research has shown CCNES have adequate internal consistency (ranged From $\alpha = 0.69$ for the punitive reactions subscale to $\alpha = 0.85$ for the expressive encouragement subscale) and test-retest reliability (ranged from $r = 0.56$ for the expressive encouragement subscale to $r = 0.83$ for the punitive reactions subscale, with $p < 0.01$ for all subscales) (34). In this research the CCNES had adequate internal consistency ($\alpha = 0.71$) and conformity factor analysis was adequate (RMSEA = 0.09).

Behavior Rating Inventory of Executive Functioning (BRIEF): The Emotional Control subscale of the Behavior Rating Inventory of Executive Functioning (BRIEF) was used to assess children's ability to modulate emotional responses. This subscale measures children's ability to control their emotions. The BRIEF also contains a list of statements that describes behaviors, and mothers are asked to respond on a 3-point scale identifying how often their child has had problems with the behaviors that are

described within the past six months (never, sometimes, or often). Both versions of the BRIEF have demonstrated adequate reliability and validity. The emotional control scale has been found to have good internal consistency ($\alpha = 0.86$ for the BRIEF-P, $\alpha = 0.89$ for the BRIEF) and test-retest reliability over an average interval of 4.5 weeks ($r = 0.87$ for the BRIEF-P, $r = 0.79$ for the BRIEF) (35,36).

Social Skills Rating System (SSRS): The Social Skills Rating System (SSRS) (37) is a standardized measure that assesses children's social skills. Two versions of the SSRS were used; the SSRS parent form preschool level was completed by mothers of the three- and four-year-

old children and the SSRS parent form elementary level was completed by mothers of the five- and six-year-old children. The SSRS preschool form has been shown to have adequate internal consistency (cooperation $\alpha = 0.81$, assertion $\alpha = 0.76$, responsibility $\alpha = 0.75$, self-control $\alpha = 0.83$, total social skills $\alpha = 0.90$) (37). In this research the SSRS had adequate internal consistency ($\alpha = 0.68$) and conformity factor analysis was adequate (RMSEA = 0.08).

Results

Demographic data for participants in the mothers were showed (Table 1). Range of age in the children and their mothers was 5-5.91 (5.33 ± 0.78) and 22-44 (31.54 ± 8.49).

Table1. Demographic data (Education) for the mothers

Group	Education									
	Under Diploma		Diploma		MB		MA		Phd	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
The mothers	7	11.66	15	25.00	24	40.00	9	15.00	5	8.33

Mean, standard deviation, and range of variables for the total sample were showed (Table 2).

Table 2. Mean, standard deviation, and range of variables for the total sample

Group	variables	Mean	SD
The mothers	Total Maternal emotion socialization	40.65	10.12
	Distress reactions	2.80	0.58
	Punitive reactions	1.98	0.61
	Expressive encouragement	6.01	0.97
	Emotion-focused reactions	5.78	0.58
	Problem-focused reactions	5.96	0.46
	Minimizing reactions	2.32	0.86
The children	Total children's emotion regulation	14.21	4.03
	Total children's social skills	101.02	16.12
	Cooperation	12.54	2.98
	Assertion	14.96	3.14
	Responsibility	11.68	3.09
	Self-Control	12.85	3.64

Data analyzed using simple regression and structural equation modeling (SEM).

It was hypothesized that total maternal emotion socialization predicted children's emotion regulation and children's social skills. Data analysis with simple regression showed total maternal emotion socialization predicted children's emotion regulation ($F=98.15, p=0.0001$) and children's social skills ($F=39.45, p=0.0001$).

It was hypothesized that children's emotion regulation skills would predict their social skill

levels. Data analysis with simple regression showed children's emotion regulation skills predicted their social skill levels ($F=69.98, p=0.0001$).

It was hypothesized that the link between maternal reactions to children's negative emotions and children's social skills would be mediated by the children's emotion regulation skills. For this hypothesis, data analyzed using structural equation modeling (SEM). The factor coefficients using structural equation modeling have been identified (Figure 1)

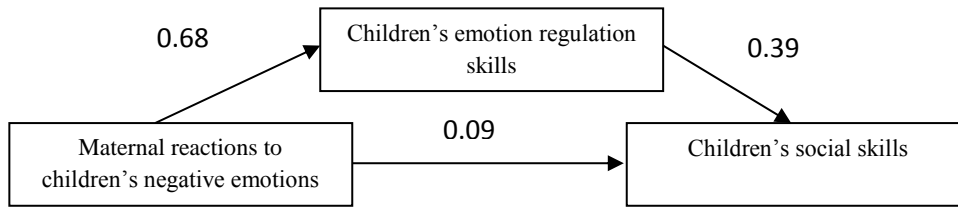


Figure 1. Factor coefficients: Relations between maternal reactions to children's negative emotions, children's emotion regulation skills, and children's social skills

The path with unsuitable standardized coefficient (less than 0.3) was removed. The new standard coefficients were specified (Figure 2).

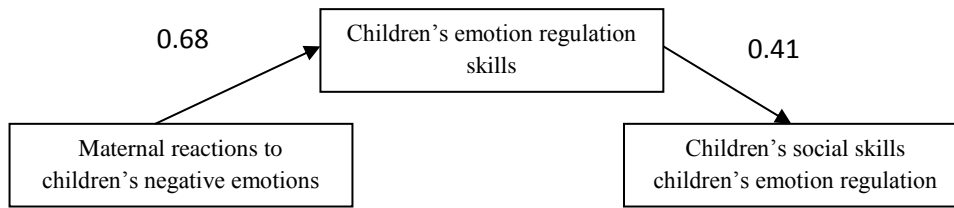


Figure 2. New factor coefficients: Relations between maternal reactions to children's negative emotions, children's emotion regulation skills, and children's social skills

Direct paths coefficients were significant (Table 3).

Table 3. Parameters of Direct Paths Coefficients

Path	SE				P
Maternal reactions to children's negative e to children's emotion regulation skills	0.68	0.54	0.03	10.98	0.0001
Children's emotion regulation skills to children's emotion regulation skills	0.41	0.26	0.03	5.24	0.0001

With considering Root-Mean-Square Error of approximation (RMSEA=0.06), Goodness of Fit Index(GFI = 0.96), Adjusted Goodness of Fit Index(AGFI=0.91), Normed Fit Index (NFI =0.96), Comparative Fit Index (CFI=0.97),

Incremental Fit Index (IFI = 0.97) and Tucker-Lewis Index (TLI = 0.96) fitness indexes of SEM showed that this mediating model can fit these data with the second model acceptably (Table 4).

Table 4. Fitness Indexes of Model

Index	df, χ^2	RMSEA	GFI	AGFI	NFI	CFI	IFI	TLI
Amount	1.89	0.06	0.96	0.91	0.96	0.97	0.97	0.96

Since the path maternal reactions to children's negative emotions to children's social skills was removed, children's emotion regulation skills completely mediated relation between reactions to children's negative emotions and children's social skills. That means maternal reactions to children's negative emotions could better predict children's social skills with mediating children's emotion regulation skills.

Conclusion

The first aim of this study was to predict children's negative emotions and children's social skills based on maternal reactions to children's negative emotions. Data analysis with simple regression showed total maternal emotion socialization predicted children's emotion regulation and children's social skills. It was hypothesized that higher levels of unsupportive maternal reactions (i.e., emotion-focused, problem-focused, or expressive

encouragement reactions) would predict lower levels of emotion regulation difficulties. Consistent with this hypothesis, maternal personal distress reactions and punitive reactions were positively associated with children's emotion regulation difficulties, revealing that mothers who endorse more personal distress and punitive reactions have children who are not as skilled at controlling their emotions, express more negative emotions, and shift from one emotional state to another very quickly.

This finding was supported by Thompson (1994), Thompson and Meyer (2007) Perry, Calkins, Nelson, Leerkes and Markovitch (2012), Fabes, Eisenberg and Bernzweig (1990), Shields and Chicchetti (1997), Lunkenheimer, Shields and Cortina (2007), Turner (2004), Cassidy (1994) and Cole, Dennis, Smith-Simon and Cohen (2009) that showed maternal reactions to children's negative emotions; emotional socialization predicted children's emotion regulation.

It was hypothesized that unsupportive maternal reactions would predict lower levels of children's social skills. Namely, children whose mothers engaged in more punishing, minimizing, and personal distress reactions were expected to display fewer cooperation, assertion, self-control, and responsibility behaviors. Distress reactions, punitive reactions, expressive encouragement and minimizing reactions predicted children's social skills.

This finding was supported by Fabes Leonard, Kupanoff and Martin (2001), Eisenberg, Fabes and Murphy (1996), Lunkenheimer, Shields and Cortina (2007), Denham (1997), Eisenberg, Fabes, Schaller, Carlo and Miller (1991), Eisenberg and Fabes (1994), Denham (1997), Cunningham, Kliwer, and Garner (2009) that showed maternal reactions to children's negative emotions; emotional socialization predicted children's social skills.

The second aim was to predict children's social skills based on children's emotion regulation. Data analysis with simple regression showed children's emotion regulation skills predicted their social skill levels.

Namely, children who had emotion regulation difficulties would exhibit fewer cooperation, assertion, responsibility, and self-control skills, and those with more developed emotion

regulation abilities would exhibit more of these social skills. Results showed children's emotion regulation predicted children's social skills. This means children who displayed more emotion regulation difficulties displayed fewer of all four types of social skills.

This finding was supported by Denham and Grout (1993), Garner and Estep (2001), Halberstadt, Denham and Dunsmore (2001), Halberstadt, Denham and Dunsmore (2001), Trentacosta and Fine (2010), Eisenberg, Hoffer and Vaughan (2007), Denham, Bassett and Wyatt (2010), Denham and Grout (1993), Chang, Shelleby, Cheong and Shaw (2012), Garner and Estep (2001), Baumrind (1968), Denham and Burger (1991), McDowell, O'Neil and Parke (2000), Baumrind (1968), McDowell, Kim, O'Neil and Parke (2002) that showed children's emotion regulation predict children's social skills.

Lastly, emotion regulation was to assess as an mediator of the association between maternal reactions to children's negative emotions and children's social skills. Data analysis with structural equation modeling (SEM) showed this mediating model can fit these data with the second model acceptably and maternal reactions to children's negative emotions could better predict children's social skills with mediating children's emotion regulation skills.

This finding was supported by Eisenberg, Cumberland and Spinrad (1998a), Grusec and Davidov (2007), Eisenberg, Fabes, Shepard, Guthrie, Murphy and Reiser (1999), Eisenberg, Cumberland and Spinrad (1998b), Cole, Dennis, Smith-Simon and Cohen (2009) Eisenberg, Fabes and Murphy (1996), Lunkenheimer, Shields and Cortina (2007), McDowell Kim, O'Neil and Parke (2002) and Davidov and Grusec (2006), Gottman, Katz and Hooven (1996) that showed role of mediation children's emotion regulation skills between maternal reactions to children's negative emotions and children's emotion regulation skills.

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