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How Do Mothers' Psychological Resources (Parenting Self-Efficacy and Enjoyment of Parenting) Enable Them to Support Young Children's Self-Regulation and Academic Skills in Korea?

By

SOO JUNG KIM

A dissertation submitted in partial satisfaction of the
requirements for the degree of
Doctor of Philosophy
in
Education
in the
Graduate Division
of the
University of California, Berkeley

Committee in charge:

Professor Susan D. Holloway, Chair
Professor David P. Pearson
Professor Qing Zhou

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Abstract

How Do Mothers' Psychological Resources (Parenting Self-Efficacy and Enjoyment of Parenting) Enable Them to Support Young Children's Self-Regulation and Academic Skills in Korea?

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SOO JUNG KIM

Doctor of Philosophy in Education

University of California, Berkeley

Professor Susan D. Holloway, Chair

The present study was designed to examine the dynamic relationships between the antecedents of autonomy-supportive parenting (the two parents' psychological resources, namely enjoyment of parenting and PSE), specific autonomy-supportive parenting behaviors (harshness, permissiveness, inconsistency, and responsiveness), and children's self-regulation development and academic skills within the contemporary Korean cultural context.

Structural equation modeling was conducted with a sample of 234 Korean mothers of pre-primary aged children in the Incheon City area in South Korea. The results indicated that the four autonomy-supportive parenting behaviors have a unique cultural function in these relationships, within the Korean cultural context. Specifically, harshness negatively predicted children's self-regulation development (emotional and cognitive regulation), whereas inconsistency positively predicted children's self-regulation development (emotional and cognitive regulation). Permissiveness and responsiveness did not predict self-regulation development (emotional and cognitive regulation) among the children with statistical significance. Furthermore, as the antecedents of the parenting behaviors that support children's self-regulation development, the mothers' psychological resources (i.e., PSE and enjoyment of parenting) enabled them to parent in a way that supported their children's self-regulation development. Finally, the nature of this relationship varied depending on a child's gender. Specifically, the paths from enjoyment of parenting to permissiveness in parenting behaviors were moderated by the child's gender.

The results of this study underscore the importance of exercising caution about the culturally unique meaning inherent in Korean mothers' autonomy-supportive parenting behaviors, and the effects of these behaviors on children's self-regulation development from an indigenous perspective. However, given the within-group variations, this study also found evidence that the culturally unique nature of the relationship between the specific autonomy-supportive parenting behaviors and children's self-regulation development does not apply equally to every individual in this cultural context.

To my Lord, who created me and saved my life

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CHAPTER ONE

Introduction

Self-regulation refers to the “capability of controlling or directing one’s attention, thoughts, emotions, and actions” (McLelland & Cameron, 2012, p. 136). The attainment of this capability has been found to be a key developmental task in early childhood; the capability to regulate oneself promotes a range of positive outcomes, including social acceptance from peers, pro-social behaviors, and avoidance of negative behaviors, and also higher academic achievement and school engagement (Bandy & Moore, 2010; Calkins et al., 1999; Graziano et al., 2007; Zimmerman & Schunk, 2001). Furthermore, longitudinal studies have consistently documented the long-term effects of self-regulation development during early childhood, such as lower rates of substance use, school dropout, and behavioral problems, as well as higher academic engagement and achievement during adolescence (e.g., Trentacosta & Shaw, 2009).

In particular, given that self-regulation is multidimensional (McClelland & Cameron, 2012; Schunk & Zimmerman, 1997), it is important to consider specific dimensions of self-regulation development and their positive outcomes respectively. Especially for kindergartners, who are experiencing the shift to formal schooling, attaining the ability to regulate their emotions (by inhibiting negative responses and delaying gratification) and regulate their cognition effortfully (voluntarily) (by planning and thinking ahead and focusing on a task) has been found to be critical for functioning in the classroom successfully (Bandy & Moore, 2010; Blair, 2003; Chang et al., 2003; Cole, Martin, & Dennis, 2004; Eisenberg et al., 2005; McClelland & Cameron, 2012).

Given the significance of self-regulation in explaining variation in a range of child outcomes, it is also important to understand what leads to individual differences in self-regulation development. Two factors have been proposed: children’s dispositional characteristics (e.g., age, gender, or temperament) and the social context in which development occurs (Karreman et al., 2006; Li-Grining, 2012; Raver, 2004). In particular, given the strong influence of parenting as one of the most proximal contexts of development during early childhood, it is crucial to carefully examine the nature of the specific parenting behaviors that are positively associated with self-regulation development. Broadly speaking, authoritative types of parenting—including autonomy granting, limit-setting activities by providing clear instructions, lower power assertion, and responsiveness—are positively linked to children’s self-regulation development, while authoritarian and/or permissive types of parenting behaviors characterized as coercive (power-assertive), controlling, harsh, and failing to provide firm structure impede optimal self-regulation development in early childhood (Baumrind, 2012; Crockenberg & Litman, 1990; Holden & West, 1989; Kuczynski, 1984; Patterson & Bank, 1989; Silverman & Ragusa, 1990; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1992).

Despite these findings, three major gaps persist in our understanding of parenting and its association with children’s self-regulation during early childhood. First, there remains much to discover regarding *how* those particular parenting behaviors support children’s self-regulation development. Self-determination theory (SDT) provides a suitable framework for describing the association between these particular parenting behaviors and children’s self-regulation development. According to SDT, parenting behaviors play an important role in creating the contexts in which children can satisfy their intrinsic psychological need for autonomy, relatedness, and competence. Having their needs satisfied increases children’s motivation to internalize socially accepted values and behaviors by regulating their emotions and behaviors

(Grolnick & Pomerantz, 2008; Ryan & Deci, 2000; Soenens & Beyers, 2012). As such, SDT theorists have proposed the following specific parenting behaviors that have the potential to *be effective* in creating contexts in which children can satisfy their needs: granting autonomy, providing structure, and being involved (responsive) (Grolnick, 2003; Grolnick 2012; Grolnick & Pomerantz, 2008; Sierens et al., 2009). Although many SDT-based studies have been conducted to determine the effects of these desirable parenting behaviors on autonomous regulation development throughout the school years (particularly during adolescence), we still know surprisingly little about whether these processes are similarly applied to the family context of young children. Furthermore, developmentally, adolescents in particular require more autonomy in the relationship with their parents (Grotevant & Cooper, 1986), for that reason, most of the research within the SDT field has largely focused on the function of parents granting autonomy (versus controlling parenting behaviors) in the relationship with adolescents' autonomous self-regulation. However, the two other dimensions of the proposed parenting behaviors (i.e., involvement and providing structure) have drawn scant attention. Thus, in this study, I will attempt to apply SDT and explore how these three specific parenting behaviors respectively and concurrently promote children's self-regulation development during early childhood.

Second, few researchers have specifically attempted to examine the antecedents of the parenting behaviors that support children's self-regulation development. Given that experiencing positive emotions may broaden individuals' think-action repertoire (Fredrickson, 1998; the Broaden-and-Build Theory), one can reasonably expect that parents who experience, for example, pleasure or enjoyment from the relationship with their children are more likely to parent in ways that are more desirable. This could involve being supportive of their children's choices and ideas (rather than controlling), providing and establishing a firm structure by informing their children in advance (rather than being inconsistent or lax), or being responsive in pursuing a warm relationship (rather than being harsh). Therefore, I intend to examine the relationship between *enjoyment of parenting*, as one of the important psychological resources for parents, and the extent to which parents exert the proposed dimensions of parenting.

As another antecedent of autonomy supportive parenting, I propose considering *parenting self-efficacy* (PSE), defined as "parents' self-reflecting judgments about their abilities to exert their role as parents successfully (Coleman & Karraker, 2000)." There are both theoretical and empirical demonstrations of PSE as one of the important predictors of general positive parenting behaviors (Coleman & Karraker, 1997; Jones & Prinz, 2005; Shumow & Lomax, 2002). Interestingly, some previous empirical studies have addressed the specific positive function of PSE in the relationship with autonomy supportive parenting behaviors (Aunola et al., 1999; Dumka et al., 1996; Izzo et al., 2000; MacPhee et al., 1996; Sanders & Wooley, 2004). However, despite empirical evidence that PSE may function as a predictor that encourages parents to choose to parent in autonomy supportive ways, few researchers have to date attempted to systemically examine the dynamic relationship between PSE, the three specific autonomy supportive parenting behaviors, and children's autonomous self-regulation development.

Lastly, although a considerable amount of empirical studies have examined the relationship between parenting behaviors (particularly parental control) and children's self-regulation development across different cultural contexts, they have produced inconsistent findings. On one hand, considerable research has demonstrated the detrimental effects of controlling parenting and the positive effects of autonomy supportive parenting on outcomes

associated with children's (and adolescents') autonomous self-regulation development across diverse societies (Ahmad et al., 2013; Marbell & Grolnick, 2012; Soenens et al., 2012; Soenens & Beyers, 2012). However, other cross-cultural research has supported the claim that the *extent of the adverse effects* of controlling parenting behaviors on children's internalization processes differ from one society to the next. This could be due, for example, to differences in the way different groups perceive "controlling behaviors" (e.g., Pomerantz & Wang, 2009). These conflicting findings highlight the necessity for further investigation of the autonomy granting versus controlling behaviors, of the other two proposed autonomy supportive parenting dimensions, and of children's self-regulation development across different cultural contexts in a more nuanced way.

Cultural models likely play a role in modifying the relationship between parenting and regulation development in all societies. Given the categorization of Korean culture as collectivistic, the findings of existing studies on parenting and children's self-regulation in other East Asian countries, such as China or Japan, may be applicable to explicate the relationship between Korean parents' parenting behaviors and their children's self-regulation attainment. For example, in line with much of the voluminous literature on Chinese parenting, Korean parents have reported the importance of socializing their children to respect—even obey—elders, which is known as the influence of Confucianism. As expected, research has found that Korean youths relate parental control to parental warmth and lower levels of neglect (Rohner & Pettengill, 1985). This socialization goal and the consequent parenting behaviors, together with the manner in which these parenting behaviors are perceived, may increase the likelihood of Korean children regulating their behaviors so not to violate the social hierarchy and to conform to society (Yang & Rosenblatt, 2001).

However, although traditional Korean culture is affected immensely by Confucianism, there have been great changes in contemporary Korean society due to the country's rapid modernization (Park & Cheah, 2005; Park & Kwon, 2009). Furthermore, the cultural emphasis on educational attainment and the competitive capitalistic structure have jointly developed a unique societal phenomenon in Korea known as "educational fever," which has led Korean parents to overlook the importance of facilitating their children's social functioning, including self-regulation development. In addition, it has caused Korean parents difficulties in experiencing positive emotions related to child-rearing due to increased levels of pressure and stress (Bong, 2003; Lee, 2006; Yang & Shin, 2008). Furthermore, although studies have demonstrated that PSE provides a significant explanation for the variance of parenting behaviors among Korean mothers (e.g., Yoon & Cho, 2011), contemporary Korean mothers have also reported significant discrepancies between their parenting behaviors and child-rearing goals (Park & Kwon, 2009), which may represent a lack of belief in their capability to parent *as it should be*.

The existence of such a social phenomenon, coupled with the findings of empirical studies, suggests that now may be a critical point at which to investigate how Korean parents parent to support their children's self-regulation attainment, instead of assuming that the nature of the relationship between parenting behaviors and self-regulation is comparable to other East Asian cultural contexts. Additionally, given the importance of acknowledging the heterogeneity within a particular cultural group (Gjerde, 2004; Holloway, 2010), it is crucial to explore the individual differences (within-group variations) in the nature of associations between the antecedents of the autonomy supportive parenting behaviors (I propose examining enjoyment of parenting and PSE), the proposed specific autonomy supportive parenting behaviors, and the

children's autonomous self-regulation within a particular cultural context; that is the contemporary Korea.

Overall, in the present study I aim to examine the dynamic relationships between the antecedents of autonomy supportive parenting (the two parents' psychological resources, namely enjoyment of parenting and PSE), the autonomy supportive parenting behaviors, and children's self-regulation development and academic skills within the contemporary Korean cultural context. The specific aims are presented below.

Aim 1. To better understand how parenting supports children's self-regulation development, by exploring the three-specific parenting behaviors (granting autonomy, providing structure, and being involved) expected to support or interrupt the children's self-regulation development, instead of general parenting styles;

Aim 2. To explore the association between those specific parenting behaviors, the children's self-regulation development, and the children's academic skills within the particular cultural context, Korea;

Aim 3. To examine the antecedents of the parenting behaviors that support the children's self-regulation development. In this study, I propose to focus on mothers' psychological resources (parenting self-efficacy and enjoyment of parenting) within the particular cultural context, Korea.

To achieve this goal, I propose to investigate the following hypothesized path models (Figure 1.1).

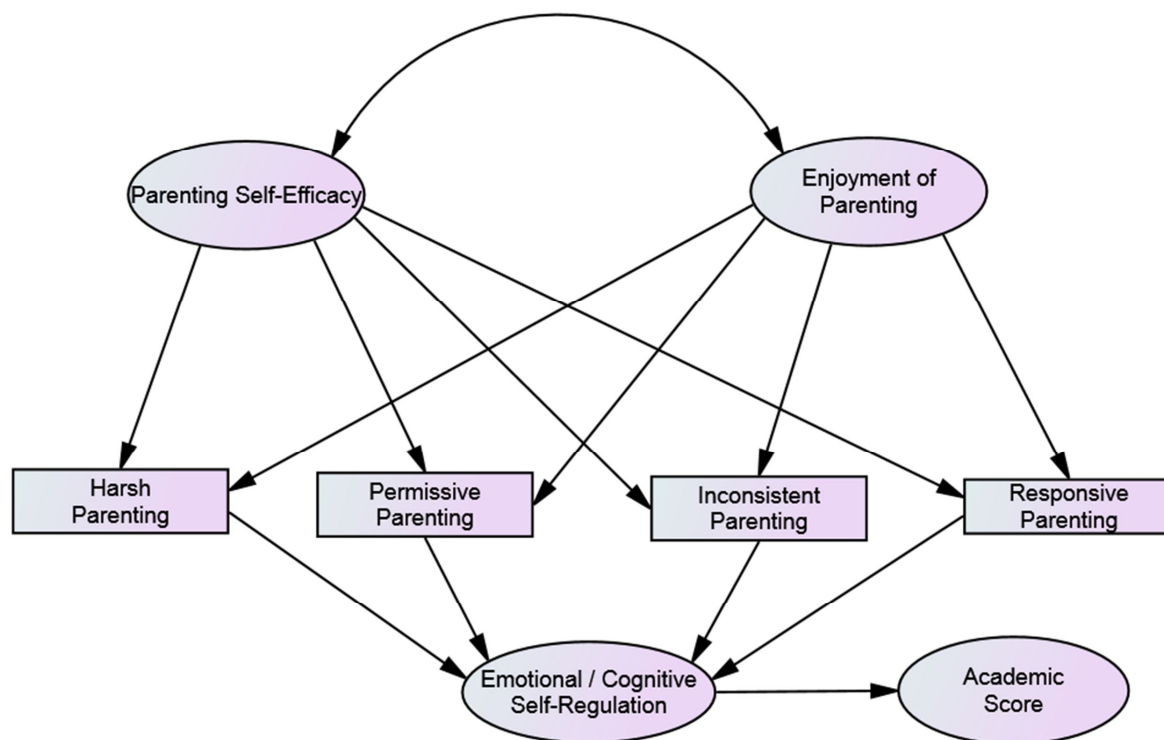


Figure 1.1. Hypothesized model for emotional self-regulation skills development and (effortful) cognitive self-regulation skills development

CHAPTER TWO

Literature Review

Self-regulation and Parenting

Significant factors for self-regulation development in early childhood. Rooted in the social-cognitive perspective, the construct of self-regulation is based on the premise that an individual is not just a passive recipient of what is happening; he or she actively selects how to respond to his or her surrounding environment and creates his or her own standards for action. Thus, the self-regulatory process can be understood as follows: in aiming to attain certain standards, the individual regulates his or her thoughts, attention, or emotions, and modifies his or her actions on his or her own (Bandura, 1989; McLelland & Cameron, 2012; Zimmerman, 1995).

A large body of research reveals the positive relationship between self-regulation and children's outcomes in various developmental areas. In particular, many studies have demonstrated that the ability to effectively regulate their emotions, thoughts, and actions is crucial for young children experiencing the transition to formal schooling. For instance, Rydell et al. (2003) found that the extent of young children's emotional self-regulation was negatively associated with their externalizing problem behaviors and positively predicted pro-social behaviors. Graziano et al. (2007) also found that kindergarteners' emotional regulation skills affected the quality of the relationship with their teacher; the kindergarteners who regulated their emotions were more likely to obtain high standardized early literacy and math achievement scores and teacher-rated academic success and productivity in the classroom (Graziano et al., 2007). In addition to these cross-sectional studies, numerous longitudinal studies have suggested that young children's emotional and cognitive self-regulation development can positively predict their social functioning and school success during adolescence (Eisenberg et al., 2000; Riggs et al., 2006; Vitaro et al., 2005; Zhou et al., 2007). In sum, these results underscore the importance of supporting children in developing self-regulation skills. Furthermore, considering Kopp's (1982) developmental stage account that a child's self-regulation development starts at birth, providing such skills development opportunities to young children is especially critical.

How, then, can self-regulation be developed, and what are the factors associated with individual differences in self-regulation development in early childhood? The research investigating the antecedents of self-regulation development represents two levels: the individual level and the contextual level. At the individual level, a child's dispositional features, such as temperament, gender, and clinical conditions, have been explored as the factors explaining individual differences in children's self-regulation development (McCabe et al., 2004; Rothbart et al., 2004). In particular, a child's gender has been identified as a significant factor in the individual differences in young children's self-regulation development (Else-Quest et al., 2006; Kochanska et al., 2001; Matthews et al., 2009; McClelland et al., 2000; Ready et al., 2005; Silverman, 2003). For instance, Matthews et al. (2009) found gender differences in teacher-rated classroom self-regulatory behaviors. That is, the girls outperformed the boys in terms of the ability to control and direct their actions, pay attention, and remember instructions. Yet despite utilizing diverse research methods to provide empirical evidence of the gender differences in young children's self-regulation development, researchers have not provided a clear explanation of the different mechanisms for boys and girls that emerge in their self-regulation development. Hence, further investigation is warranted into why boys and girls show differences in the extent

of their self-regulation development and whether such gender differences influence the other mechanisms linked to self-regulation development.

Meanwhile, since the self-regulatory processes basically emerge and develop from social interactions with significant others, it is crucial to understand how children develop self-regulation through their social interactions and the optimal social contexts for their self-regulation development by considering the contexts in which children are embedded as the factors for self-regulation development in early childhood. In particular, due to the strong influence of parenting as one of the most proximal contexts of development during early childhood, the nature (or the quality) of the parenting behaviors that produce the social contexts in which children can practice and develop self-regulation has drawn considerable scholarly attention (Calkins et al., 1999; Carson & Parke, 1996; Chang et al., 2003; Eisenberg & Fabes, 1994; Grolnick & Farakas, 2002; Melnick & Hinshaw, 2000). Generally speaking, authoritative parenting behaviors, characterized as granting autonomy and providing firm control, and being responsive and nurturing parents—delineated initially by Baumrind (1967, 1971) and developed by Dornbush et al. (1987)—have been shown to positively affect children's self-regulation and, in turn, their academic achievement (Belsky et al., 2005; Eiden et al., 2001; Feldman & Klein, 2003; Feldman & Wentzel, 1990). Meanwhile, authoritarian parenting behaviors, characterized by controlling (or restrictive) and power-assertive parenting, have been found to correlate with children's self-regulation difficulties (Kochanska & Knaack, 2003; Morrell & Murray, 2003) and, in turn, externalizing and internalizing problems (Spinrad et al., 2007). These studies have consistently provided empirical evidence of the importance of appropriate parenting behaviors in facilitating children's self-regulation development.

Gaps in the literature on self-regulation and parenting. Despite researchers' efforts to pinpoint the nature of the parent–child interaction that allows the child to optimally develop his or her self-regulation abilities, three major gaps persist in our understanding of parenting and its association with children's self-regulation during early childhood.

First, there remains much to consider regarding the association between each specific parenting behavior and the child's self-regulation development. As mentioned in the previous subsection, the general parenting styles that support children's self-regulation development have been rigorously examined to identify their links to children's self-regulation development. However, there have been limitations in uncovering the mechanisms that affect how and why parents' specific behaviors contribute to their children's self-regulation development. Self-determination theory (SDT) has yielded an integrative framework for describing the association between particular parenting behaviors and children's self-regulation development, by proposing specific parenting dimensions—namely, supporting autonomy (rather than controlling, harsh, or power-assertive), providing a firm structure (rather than being inconsistent and chaotic), and providing a caring and supportive environment (rather than being negligent) (Grolnick, 2003; Grolnick & Farakas, 2002; Grolnick & Pomerantz, 2008; Grolnick & Ryan, 1989). According to SDT, humans can be intrinsically motivated or internalize extrinsically motivated behaviors or values by regulating themselves once they satisfy their three intrinsic needs for autonomy, relatedness, and competence; further, those proposed parenting dimensions aid children in satisfying these psychological needs (Ryan & Deci, 2000; Soenens & Beyers, 2012). This theorization indicates the mechanisms of satisfying intrinsic needs by examining the specific parenting behaviors above, needs satisfaction, and self-regulation development. However, previous researchers have been interested mainly in studying controlling behaviors, instead of

examining all three parenting dimensions. Furthermore, despite the significance of acquiring self-regulatory abilities, especially for young children undergoing the transition to primary school and the developmental course proposed by Kopp (self-regulation developing from birth), relatively little research has been conducted on young children. Indeed, most studies have targeted adolescents. Thus, future studies must consider the three dimensions of effective parenting in supporting the creation of social contexts in which young children, particularly those experiencing the transition to formal schooling, can develop self-regulation skills.

Second, few researchers have specifically examined the antecedents of the parenting behaviors that support children's self-regulation development. Although many researchers have investigated the predictors of general positive parenting behaviors (Belsky, 1984; Crockenberg, 1988; Goodnow, 2002; Grych, 2002; Taylor et al., 1993), their studies have not been integrated so as to help investigators aiming to understand the *specific antecedents of parenting that support the child's self-regulation development* and how these variables specifically and systemically function within the relationship between autonomy supportive parenting and children's self-regulation development.

Finally, there are inconsistencies in the findings of the investigations into the relationship between autonomy supportive parenting and children's self-regulation development across different cultural contexts. Some studies have found a universal function of the specific autonomy supportive parenting behaviors in facilitating children's self-regulation development (e.g., Soenens et al., 2012; Soenens & Vansteenkiste, 2010). However, other studies have identified uniqueness in the nature of the relationship between autonomy supportive parenting and children's self-regulation development from culture to culture (e.g., Chang et al., 2003; Li-Grining, 2012; Zhou et al., 2004). Therefore, future studies must account for how culture functions in the relationship between the specific autonomy supportive parenting behaviors and children's self-regulation development across different cultural contexts.

In the following section, I will review in more detail the three major gaps in the literature.

Specific parenting behaviors support children's self-regulation development. The three dimensions of effective parenting—granting autonomy, providing a firm structure, and parental involvement—facilitate children's self-regulation (or self-determination) by satisfying the three innate needs for autonomy, competence, and relatedness. Therefore, I will define each parenting dimension and explore how each parenting dimension contributes to children's self-regulation development.

Autonomy supportive parenting versus controlling parenting. Autonomy supportive parenting refers to the parenting behaviors that “encourage independent problem solving choice, and participation in decision making” (Grolnick & Ryan, 1989, p. 144). When a parent listens carefully, tries to understand the child's standpoint, asks about what the child hopes to gain from making a decision, provides an opportunity for the child to choose, and allows the child to initiate and solve the problem in his or her own way, the child's autonomy can be manifested (Connell & Wellborn, 1991; Deci et al., 1991; Grolnick, 2009; Reeve & Jang, 2006). According to SDT, having autonomy helps individuals feel that their behaviors stem from themselves, perceive themselves as active agents, and believe that they have choices (Grolnick, 2012). The satisfaction of the intrinsic need for autonomy leads to the intrinsic motivation to pursue certain activities.

As the polar opposite of granting autonomy, controlling parenting behaviors—characterized as “parents' use of power in achieving compliance as well as a paramount valuing of obedience in children” (Grolnick & Ryan, 1989, p. 144)—have been widely explored. Parents

can exercise (unqualified) power over their children by commanding or directing their behaviors, threatening them, and physically forcing them to exhibit behaviors. Consequently, the children feel pressure (Grolnick, 2003) and may be deprived of the opportunity to satisfy their need to feel that they initiate their own actions in their interactions with their parents. In turn, this creates hostility and hinders the children from autonomously internalizing extrinsic controls (Deci & Ryan, 1987).

The relationships between autonomy granting versus controlling and self-regulation development (internalizing controls/rules provided extrinsically), motivation, psychological well-being (internalizing problems/externalizing problems), school engagement, etc. (longitudinally) have been empirically and rigorously investigated. However, with the exception of Grolnick and Ryan's (1989) research, most studies have involved adolescents, as developmentally adolescents need more autonomy (Grotevant & Cooper, 1986; Steinberg & Silk, 2002). Thus, the present study concerns the relationship between young (preschool aged) children's self-regulation development and parents' controlling behaviors. These controlling behaviors include the parents overusing their power in interactions with their children and forcing their children to obey them, even by threatening them. The study population is preschool-age children and their mothers. The results are expected to contribute to addressing whether the mechanism identified in relation to adolescents (controlling parenting may thwart children's opportunities to fulfill their need for autonomy, which may hamper the children's self-regulation development) similarly applies to early childhood.

Providing firm structure versus chaotic parenting. Parents can provide children with structure by disciplining them consistently and providing clear guidelines, expectations, and behavioral rules (Grolnick, 2009; Grolnick & Ryan, 1989; Jeon, 2007). According to SDT, the provision of structure helps children satisfy their intrinsic need to feel competent by enabling them to understand "action–outcome relations" (Grolnick & Ryan, 1989). When they have clear guidelines, children are likely to predict the consequences of their actions and plan appropriate strategies for achieving the optimal outcome and avoiding failure (Connell & Wellborn, 1991). Moreover, when children have a sense of the connection between their actions and positive outcomes, they can perceive having control and feeling competent (Farakas & Grolnick, 2010; Skinner et al., 1990). Accordingly, children who feel competent can be behaviorally, cognitively, and emotionally engaged with tasks (Ryan & Deci, 2002).

Despite the conceptual importance of parents providing the structure that contributes to satisfying children's intrinsic needs and their self-determination, relatively few studies in the SDT field have attempted to empirically examine how providing structure contributes to, and functions within, children's self-regulation and motivation. Thus, we may require a more nuanced understanding of the concept of structure through further empirical studies. Recently, Farakas and Grolnick (2010) proposed six components of structure: (a) clear and consistent guidelines, (b) predictable consequences, (c) opportunity to meet expectations, (d) information feedback, (e) rationales for rules and expectations, and (f) parents acting as authority figures in the home. By interviewing adolescents (seventh- and eighth-graders), Farakas and Grolnick (2010) found that these six components were correlated; that is, all six components satisfactorily specified the concept of structure. Furthermore, by emphasizing that the correlation was *moderate* (not extreme), they explained that the structure dimension is multi-faceted rather than uni-faceted. In addition, the structure dimension was relatively independent of autonomy support, and it predicted the adolescents' motivation and performance in school (Farakas & Grolnick, 2010).

In the current study, I propose that *permissive* and *inconsistent* parenting behaviors specifically contradict the provision of structure. In forming the opposite pole of providing structure conceptually, these two dimensions of ineffective parenting involve a parent's tendency to fail to provide clear and consistent rules that the child can refer to when planning his or her actions. These two dimensions will facilitate empirical examinations of the structure dimension of parenting and its relationship with children's outcomes.

Permissive parenting behavior has received significant scholarly attention, and its negative effects on children's adjustment have been consistently reported, once Baumrind (1971) outlined authoritative, authoritarian, and permissive types of parenting in her initial parenting classification studies that targeted middle class preschoolers in the US. Baumrind (1971) conceptualized and identified permissive parenting types by considering two parenting dimensions: demandingness and warmth. Permissive parenting behavior describes parents who show lower demandingness but higher warmth toward their children; it has something to do with the tendencies of children who are immature and incompetent in controlling their compulsions, and who exhibit a lack of social responsibility and independence (Baumrind, 1971, 1978; Dornbush et al., 1987; Steinberg et al., 1992). Furthermore, recently, as more attention has been paid to the lack of demandingness, the construct of (over-)indulgence has been proposed, and its negative association with a child's outcome has been addressed (Chen et al., 2000; Dawson & Bredehoft, 2005; Xu et al., 2009). The negative effects of parental laxness with regard to setting behavioral standards for their children and parental failure to monitor children's behaviors can be viewed as evidence that parents who tend toward permissiveness fail to provide their children with clear principles and expected activities, thereby creating an environment where it is very difficult for the children to control themselves and behave responsibly. In addition, from the children's perspective, permissive parents do not provide any of the guidance or direction that they need in order to learn to control their desires and to behave and develop appropriately (Bornstein & Bornstein, 2007; Grusec & Goodnow, 1994).

Regarding the failure to provide a firm structure, inconsistent parenting behavior—the parents' absence of standards, their failure to monitor their children, and erratic punishment and rewards (Gardner, 1989; Patterson, 1982)—has been linked to children's behavioral problems (Patterson, 1976). In particular, scholars have constructed various hypotheses concerning the relationship between parental inconsistency and behavioral maladjustment in children. Patterson (1986) hypothesized that the repeated mixed and inconsistent consequences of problematic behaviors would contribute to maintaining the children's problematic behaviors. Walher and Dumas (1986) also proposed the predictability hypothesis to explain the relationship between inconsistent parenting behaviors and children's problematic behaviors. This hypothesis assumes that when children are frequently exposed to unpredictable and inconsistent parenting, they continue to exhibit the rebellious behaviors that cause predictably negative parental responses. There has been an accumulation of empirical evidence substantiating that inconsistent parenting has negative effects on children's psychological adjustment (Dadds, 1995; Dwairy, 2008; Gardner, 1989; Jewell et al., 2008).

The extensive empirical findings concerning the negative effects that these two parenting styles have on children's social and academic outcomes may offer counter-evidence of the importance of the parental provision of structure in promoting children's social and academic outcomes. Furthermore, since the discussion about what it means to provide firm structure, and the tools for measuring it, is relatively new, this current study investigates how these two dimensions influence the development of self-regulation in children. This will contribute to the

implementation of the mechanism through which SDT achieves its explanatory power.

Responsive versus rejection—parental involvement. Lastly, parental involvement refers to the “parents’ behaviors in showing interest in and attention to child rearing and playing an active part in their child’s life” (Grolnick & Ryan, 1989, p. 144). When parents are positively involved in their children’s lives, they form a close relationship by responding sensitively to the children’s cues and willingly providing the physical and psychological resources that the children require (Jeon, 2007; Skinner & Wellborn, 1997). Doing so may create the social context in which parents and their children communicate intimately, allowing the parents to understand what is going on in their children’s daily lives. This intimate relationship can allow a child to feel connected to his or her most significant others. The SDT theorists have observed that when children satisfy their intrinsic need for relatedness, they are likely to internalize the values that their parents provide, and, in turn, be self-determined to master their environment (Grolnick, 2009, 2012). For instance, Furrer and Skinner (2003) demonstrated the relationship between a higher sense of relatedness (to parents, peers, and teachers) and greater emotional engagement in school among adolescents, who are likely to seek developmental autonomy.

In order to better-understand the mechanism between parental involvement and children’s self-regulation, it would be helpful to identify the features of parental involvement. Considering the definition of involvement proposed by Grolnick and Ryan (1989), the specific parenting behaviors related to this construct may include responsive parenting and warmth parenting. Many authors have highlighted that these two factors have continually been objects of concern in prior studies on parenting, and they have had a positive effect on children’s development (e.g., Landry et al., 2006; Tamis Le-Monda et al., 1996). Additionally, some studies have noted that responsive parenting and warmth parenting function nearly identically in terms of their relationship with children’s outcomes (e.g., Belsky et al., 2005; Goldberg, Grusec, & Jenkins, 1999; Porter et al., 2005; Steelman et al., 2002; Wade et al., 2011). However, the differences between these two types of parenting might be subtle; while warmth parenting conceptually focuses on delivering and sharing warm and kind emotions or affect with the child, responsive parenting describes the behaviors that foster a more cooperative and faithful relationship by responding sensitively and responsively to the child’s daily life demands (Cahill, Deater-Deckard, Pike, & Hughes, 2007; Davidov & Grusec, 2006; MacDonald, 1992; Mize & Pettit, 1997).

In particular, responsive parenting has garnered consistent attention as an important positive dimension of parenting. Attachment theorists in particular have demonstrated the positive relationship between responsive parenting behaviors and children’s positive outcomes. The parents’ efforts to respond sensitively to their children’s cues and attune themselves to their children’s requests enable both the parents and the children to create a securely attached relationship that helps children learn positive strategies to adjust and regulate their emotions, thoughts, and behaviors (Sroufe, 1983; Tronick, 1989). For example, Ziv, Oppenheim, and Sagi-Schwartz (2004) found that seven-year-old children categorized as securely attached to their parents in infancy were likely to perceive their parents or friends as potential emotional and instrumental sources of support. Such expectations may affect the children’s ability to manage tension during peer conflicts. Kochanska (2001), who investigated the trajectories of emotional development using a longitudinal research design, also found that securely attached children showed less fear and anger during episodes that elicited negative emotions, were less depressed, and exhibited more joy during episodes that elicited positive emotions. These findings support the view that a history of secure attachment may enhance children’s willingness and ability to react to external stimuli with a socially accepted level of emotion.

In the current study, I investigate how responsive parenting behaviors, which highlight involvement, specifically influence the development of self-regulation in children. This research will contribute to identifying the mechanism in the relationship between parental involvement and children's self-regulation, as the SDT theorists have addressed.

Although a considerable amount of research has lively investigated autonomy granting parenting (or controlling parenting, as its opposite pole) and its effects on children's self-regulation development, we still know surprisingly little about the functions of the two other dimensions of parenting in relation to children's autonomous self-regulation. Given that all three dimensions of parenting are necessary in order to provide children with the context for fulfilling their psychological needs (autonomy, competence, and relatedness), autonomy supportive parenting is necessary, but insufficient. Recently, some SDT theorists (Grolnick, 2003; Grolnick & Farakas, 2002; Grolnick & Pomerantz, 2010) have proposed requirements for examining the importance or function of providing both structure and caring to support children's autonomous self-regulation, in addition to granting autonomy. In order to fill the gap in the literature, this study investigates how the three specific autonomy supportive parenting behaviors function in the relationship with children's autonomous self-regulation development.

What makes parents choose to parent in an autonomy supportive way as opposed to an autonomy interrupting way? Given parents' crucial role in facilitating children's autonomous self-regulation by parenting such that they grant the children autonomy, provide a firm structure, and are involved in the children's lives (Grolnick, 2009; Grolnick & Farakas, 2002; Grolnick & Ryan, 1989; Jeon, 2007; Ryan & Deci, 2000), the questions that arise are *what makes parents choose to (or not to) parent in that way and why do parents behave (or not) in that way?*

Much attention has been devoted to proposing the antecedents of positive parenting, such as early developmental history, personality, psychological state (e.g., depression), marital satisfaction, social network support, parenting beliefs, perception of the child, economic hardship, or stressful life events (Abidin, 1985; Darling & Steinberg, 1993). However, the antecedents that specifically predict the parenting behaviors or dimensions proposed to support children's autonomous self-regulation have not been investigated systematically. In attempting to identify the factors associated with parents' efforts to support and promote their children's autonomous self-regulation, Grolnick uncovered those that interfere with the process. Specifically, Grolnick (2003) proposed three pressures from three different sources that interfere with parents' ability to provide autonomy and structure and be more involved with their children. The first source of pressure stems from the wider contexts surrounding the parents, such as economic pressures or marital problems. Such pressures can easily sap the parents' psychological and instrumental energies, and the lack of resources, in turn, will lead the parents to be controlling and to command their children to behave, instead of giving them the time or opportunities to behave in their own ways. Further, Grolnick, Weiss, McKenzie, and Wrightman (1996) found that parents who faced more stressful experiences were less likely to grant their adolescent children autonomy and provide them with a structured home environment.

The child's unique characteristics, such as temperament, behavioral tendencies, or competence level, have been proposed as another source of pressure. For example, mothers whose children were perceived to have "difficult" temperamental features were likely to be controlling and to struggle with involvement (Grolnick et al., 1996). Similarly, Pomerantz and Eaton (2000) found that elementary school children's low achievement facilitated their mothers' intrusive support behaviors (i.e., checking or helping with homework when their children did not request assistance). In addition, Grolnick et al. (2002) identified a negative relationship between

children's grades and the extent of the mothers' endorsement of control over homework-like tasks. These findings empirically support the view that children's own characteristics function as a source of pressure that affects parents' granting of autonomy and prompts them to be controlling. This has been similarly investigated by researchers who aimed to demonstrate bi-directionality in the parent-child interaction (Bates, 1980; Buss, 1981; Kuczynski & Parkin, 2007; Lee & Bates, 1985).

Finally, parents' autonomy supportive behaviors may be impeded by their own internal pressures, such as ego-involvement, describing the mother's psychological status of believing "one's self-esteem hinges on one's performance" (Grolnick, 2003, p. 101). For example, Grolnick et al. (2002) provided empirical evidence that parents were likely to be controlling when they were ego-involved in their children's performance in a laboratory-designed study. They found that the mothers, who were told that they were (highly) responsible for their children's performance, serving as an example of a situation where mothers become ego-involved in their child's performance, were likely to use directives and be controlling, both verbally and behaviorally (Grolnick et al., 2002).

Although Grolnick (2003, 2009) advocated considering various antecedents from different sources (i.e., external pressure, child's characteristics, and parents' self-imposed pressure/characteristics), many studies have provided empirical support for the particular importance of the parents' own internal or psychological status in predicting their autonomy supportive parenting, such as proneness to shame (Mills et al., 2007), insecure attachment history/separation anxiety (especially for the parents of adolescents) (Soenens et al., 2009; Verschueren et al., 2006), maladaptive perfectionism (Soenens et al., 2007), and ego-involvement (Grolnick, 2003). In addition, Barber et al. (2002) argued that parents' own personality functioning (i.e., internal pressure) represents the most proximal predictor of their parenting (Barber et al., 2002). Furthermore, Belsky (1984), who proposed the antecedents of general positive parenting (i.e., personal psychological resources of the parents, characteristics of the child, and contextual sources of stress and support) in describing his process model, argued that parents' personal psychological resources play a far more important role in facilitating positive parenting than the characteristics of the child and the contextual sources of stress and support. Thus, future studies focusing on the role of parents' internal psychological resources or personality characteristics would be warranted to pursue a better understanding of the antecedents of the parenting behaviors that support children's autonomous self-regulation.

In the current study, I explore two inner resources—parents' perceived enjoyment of parenting and their parenting self-efficacy (PSE) beliefs—as the antecedents of autonomy supportive parenting behaviors.

Enjoyment of parenting. As a potential psychological resource that may motivate parents to parent in a way that supports their children's autonomous self-regulation, I investigate the *enjoyment of parenting*, describable as the extent to which one enjoys being a parent.

A comparison with similar constructs may clarify the relatively new concept of enjoyment of parenting. As a comparable notion, researchers have investigated *satisfaction with parenting* or *parental satisfaction*, defined as the perceived gratification derived from the parenting role (Goetting, 1986; Rogers & White, 1998; Thompson & Walker, 2004). Although both enjoyment of parenting and satisfaction with parenting generally describe the positive psychological status that one enjoys from performing one's role as a parent, there are arguably subtle differences in the conceptualizations of these two constructs. Interestingly, satisfaction with parenting has been regarded as being robustly shaped (the result/production of cumulative

cognitive judgment) (McLanahan & Adams, 1987) by external/contextual situations, such as marital happiness, family structure, social support network, or the child's characteristics (for a review, see Goetting, 1986). In accordance with this perspective, substantial research into parental satisfaction has been carried out to uncover how these specific contextual factors/situations influence parental satisfaction (Rogers & White, 1998). However, conceptually, the extent of parents' perceived enjoyment of parenting may need to be understood and investigated in terms of the parents' absolute emotional status (i.e., enjoyment/pleasure) elicited from exercising their role as parents.

As a pleasurable emotional status manifested through parenting, the enjoyment of parenting may support parenting in positive ways and the choice to parent in that way. This is basically derived from positive psychology, according to which experiencing positive emotion enables one to achieve the optimal experience and healthy development in various ways (Fredrickson, 2001; Sheldon & King, 2001). According to this view, positive emotion is not only a major index to show that a person is flourishing, or optimally functioning; more importantly, the positive emotion can produce flourishing *in the long term* (Fredrickson, 2001). Fredrickson (1998) proposed the broaden-and-build theory to explain the mechanism of positive emotion. According to the theory (Fredrickson, 1998, 2001), positive emotion broadens the range of human thoughts and actions, enabling the individual to think more flexibly and to seek and execute effective solutions. Additionally, through this broadened range of thoughts and actions, the individual can build and accrue a variety of enduring personal resources, including physical (physical skills, health), social (friendships, social support networks), intellectual (knowledge, theory of mind, intellectual complexity, executive control), or psychological resources (resilience, self-esteem, optimism, creativity) (Fredrickson, 2001; Fredrickson & Branigan, 2005; Frederickson, Tugade, Waugh, & Larkin, 2003). This broadened thought-action repertoire and these accrued personal resources not only enable a person not to give up and to overcome crises but also ultimately enable him or her to adjust successfully to his or her environment and achieve future well-being (Fredrickson, 1998, 2001).

It must be noted that according to the theory of positive psychology, experiencing positive emotions, such as joy, happiness, like, love, enjoyment, and pleasure, through performing one's parental role is not only important in terms of the positive emotions; more importantly, it prompts the parents to choose positive parenting behaviors so that they can achieve optimal functioning (flourishing) in the future.

Frederickson's broaden-and-build theory may be useful for explaining specifically the mechanism operating in the relationship between parents' positive emotions and positive parenting (specifically, in the current study, autonomy supportive parenting behaviors). Parents who experience positive emotions because they enjoy their parenting role are likely to exhibit broadened (a wider range of) thoughts and actions in their parenting; that is, they can scrutinize flexibly with an open mind what will support their children with regulating autonomously and what sort of parenting behaviors can predict positively the children's self-regulation development. Besides, this wider range of thoughts and actions (regarding how to support children's self-regulation development) helps parents build diverse, enduring, personal resources that support them in choosing to parent in that way, regardless of their contexts. For example, obtaining social support through active social interchanges will prevent parents from responding to their children irrationally, and they can choose parenting behaviors to facilitate their children's autonomous self-regulation development by synthesizing the information about various types of parenting. Furthermore, even when they are under tremendous stress, the parents will neither be harsh with

their children nor parent inconsistently depending on their impulses. Rather, they will exercise reasonable thinking that is based on resilience, be positive, and choose a parenting style that promotes their children's autonomy, as the parents will be able to rely on accrued psychological (inner) resources, such as resilience or self-esteem.

To date, few researchers have attempted to theorize this concept, and there has been no empirical research investigating the relationship between the enjoyment of parenting—or the positive and pleasurable emotional experience of parenting—and the proposed autonomy supportive parenting behaviors (i.e., granting autonomy, providing a firm structure, and being involved and responsive). Such a study is essential for improving the clarity in conceptualizing the enjoyment of parenting and to empirically investigate how the enjoyment of parenting contributes to parenting in an autonomy supportive way.

Parenting self-efficacy (PSE). PSE may function as another important internal resource that can motivate parents to support their children's autonomous self-regulation.

To define parenting self-efficacy (PSE), we must first consider the self-efficacy construct. Developed within the framework of Bandura's (1982, 1989) social cognitive theory, self-efficacy is defined as a person's self-reflecting judgment about his or her ability to perform competently and effectively in a particular domain. Conceptually, reflecting on one's abilities may guide the individual to decide what he or she can achieve and how much effort he or she should exert to achieve it. Applying this conceptualization to the parenting domain, PSE refers to parents' self-reflecting judgments about their ability to perform the parenting role successfully (Coleman & Karraker, 1997). Based on their self-reflection process, parents may estimate or expect what they can achieve, plan what they should do in order to achieve it, and determine how much effort they should put into their parenting behaviors.

A number of studies have consistently demonstrated that PSE is one of the most important determinants of positive parenting behaviors (e.g., Elder, Eccles, Ardel, & Lord, 1995; Shumow & Lomax, 2002; see also Coleman & Karraker, 1997; Jones & Prinz, 2005). Interestingly, many of these empirical studies explored the particular relationship between PSE and the dimensions of autonomy supportive parenting. Their results indicated that PSE positively affected the extent of authoritative types of parenting (Aunola et al., 1999; Celada, 2010), autonomy granting (MacPhee et al., 1996), parental limit setting (MacPhee et al., 1996), and responsiveness (Dumka et al., 1996; Izzo et al., 2000), but negatively affected the extent of the adolescents' reporting of harsh parental discipline (MacPhee et al., 1996; Sanders & Woolley, 2004), laxness (Sanders & Woolley, 2004), and inconsistent parenting (Dumka et al., 1996).

The mechanisms through which PSE influences parents' behaviors have been conceptualized as the complex interaction of "attributional and motivational pathways" (Coleman & Karraker, 1997). That is, parents with low self-efficacy are likely to attribute their stressful situations to their child's innate and stable factors. Therefore, if these parents face considerable stress regarding their parental role, they are likely to feel hopeless due to their appraisal that their problems are unalterable and that no response exists to overcome the adversity. Conversely, parents with high self-efficacy commonly believe that their problems are associated with their own insufficient efforts or knowledge, and thus they endeavor to find ways of accommodating or solving their problems (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Coleman & Karraker, 1997; Oettingen, 1995).

In addition to the positive relationship between PSE and positive parenting behaviors, researchers have investigated the direct relationship between PSE and children's (and adolescents') adjustments. Some studies have found a direct relationship between PSE and

children's outcomes. For example, high PSE has been associated with fewer behavioral problems in adolescents (Bogenschneider et al., 1997), a high frequency of infants' observed social interactions (Bohlin & Hagekull, 1987), adolescents' higher self-efficacy beliefs (Ardelt & Eccles, 2001), and improved grades in school among adolescents (Bogenschneider et al., 1997).

The proposed hypothesis for these direct relationships was that children (and adolescents) might have the opportunity to observe how their efficacious parents think and behave, and this vicarious experience may directly affect the children's behaviors, social-emotional functioning, and academic achievement. For example, Ardel and Eccles (2001) found a significant direct relationship between PSE and young adolescents' self-efficacy, particularly among those with difficult life contexts, such as the children of black single mothers. They interpreted this finding as an indication that highly efficacious parents might serve as role models by believing in the possibilities of improvement and change, even in unfavorable environments, which may facilitate and heighten their adolescent children's self-efficacy beliefs. However, most of these studies investigated this relationship via conducting a simple quantitative correlation analysis. Thus, despite the statistically significant correlations, we may be unable to conclude simply and clearly that PSE directly affects children's outcomes in various developmental areas. Rather, these findings may represent a clear call for a more nuanced understanding of the mechanism at work within this relationship.

In an attempt to provide a more convincing depiction of the relationship between PSE and children's outcomes, researchers have proposed that PSE positively predicts the outcomes indirectly via positive parenting behaviors. For instance, Hoover-Dempsey and Sandler's (1997) parental involvement model offers a potentially useful framework for explaining the relationship between PSE and children's schooling and achievement. In their review, Hoover-Dempsey et al. (2001) claimed that PSE facilitated parents' involvement in their children's school-related activities at home (i.e., homework) and this, in turn, positively affected the children's academic achievement and their academic-related beliefs or attitudes. Shumow and Lomax (2002) also investigated the indirect role that PSE plays in adolescents' academic and social-emotional adjustment via positive parenting behaviors. They found that PSE positively predicted parental involvement (the frequency of attending school-related activities) and parental monitoring (how much parents know about their adolescents' daily lives), and parental involvement and parental monitoring positively predicted the adolescents' academic adjustment and social-emotional adjustment. These studies have clearly shown that PSE is a significant psychological resource in facilitating positive parenting behaviors and parental competence, which subsequently promotes the child's development (i.e., the child's behaviors, social-emotional functioning, and academic achievement) (see also Jones & Prinz, 2005).

Extensive empirical evidence supports the view that PSE functions as a salient psychological resource in facilitating (or being associated with) autonomy supportive parenting behaviors, which subsequently predicts children's autonomous self-regulation development. For example, Purdie, Carroll, and Roche (2004) examined the mediation link between PSE, adolescents' perceptions of their parents' autonomy granting, involvement, and strictness, and the adolescents' self-regulation. They observed that PSE predicted the extent of the parents' involvement and strictness, and the parental involvement predicted the adolescents' self-regulation. However, the studies providing this evidence have suffered from shortcomings that hamper our efforts to understand the function of PSE in its relationship with autonomy supportive parenting and children's autonomous self-regulation. One shortcoming is the absence of a sound, validated PSE measurement tool for assessing the PSE construct precisely by

distinguishing it from parents' other related psychological constructs, such as parental self-agency or parental self-esteem. Second, while several studies have demonstrated the statistically significant positive correlation between PSE and the three dimensions of autonomy supportive parenting (autonomy granting, providing structure, responsiveness), few have attempted to systemically uncover the mechanism—that is, how PSE as the parents' salient psychological resource contributes to these three dimensions of parenting individually and concurrently. Lastly, given that previous studies found variations in the relationship between PSE, autonomy supportive parenting, and the child's self-regulation depending on the children's or parents' backgrounds (e.g., SES or ethnicity), future studies should consider cultural or background differences (e.g., SES, parents' resources, etc.) and how PSE functions differently in these cases.

The relationship between autonomy supportive parenting and the child's regulation development across different cultural contexts. Due to the effectiveness of SDT in depicting the underlying mechanism in the relationship between parenting and children's self-regulation development, numerous empirical studies have sought to provide empirical support for the theoretical predictions of the relationship between the three specific parenting behaviors expected to support children's autonomous self-regulation development in various contexts. Since parenting is culturally situated—a theoretically and empirically well-accepted fact that has drawn the sustained attention of researchers from various disciplines, such as anthropology and cultural psychology (e.g., Chao, 1994, 1995; Gallimore et al., 1989; Holloway, 2010; Kagitcibasi, 2005; Suizzo et al., 2008; Super & Harkness, 1986)—researchers have attempted to determine the nature of each of the three specific parenting behaviors proposed by the SDT theorists across different cultural contexts, and the associations between these specific parenting behaviors and children's autonomous self-regulation development in these contexts.

However, these studies have produced conflicting findings. For example, some researchers have argued that the mechanism underlying the relationship between parenting and children's self-regulation development holds across different cultural contexts, as the effects or prevalence of the proposed parenting behaviors in supporting the children to be self-regulating are identical from culture to culture (Chang et al., 2003; Chirkov et al., 2005; Nelson et al., 2006; Soenens et al., 2007; Soenens & Beyers, 2012). In contrast, researchers who have advocated that cultural differences exist in the effects or prevalence of the specific parenting behaviors in supporting children to be self-regulating have attempted to understand differences in the perception of each parenting dimension in different cultural contexts. They have also attempted to determine the extent of the different views on each parenting dimension expected to support children's self-regulation functions in the relationship with their autonomous self-regulation development across different cultural contexts (Chao & Aque, 2009; Pomerantz & Wang, 2009).

The universal relationship between autonomy supportive parenting and children's self-regulation development across cultural contexts. Regarding the relationship between autonomy supportive parenting and children's self-regulation development, the SDT theorists have posited the *universalistic perspective*. Put simply, they have advocated that the proposed three autonomy supportive parenting behaviors (i.e., granting autonomy, providing structure, and being involved) positively contribute to children's autonomous regulation in the same way across different cultural contexts (Grolnick, 2003; Soenens & Beyers, 2012; Soenens & Vansteenkiste, 2010). The underlying mechanism of this universal positive effect of autonomy supportive parenting on children's self-regulation is identifiable in the nature of the three psychological needs (i.e., autonomy, competence, and relatedness). According to SDT, autonomy, competence, and relatedness are basic human psychological needs that must be satisfied universally across ages

and cultures if people are to achieve optimal health and well-being (Chirkov et al., 2005; Deci & Ryan, 2000, 1987; Ryan & Deci, 2000; Soenens & Beyers, 2012; Soenens & Vansteenkiste, 2010).

Of the proposed three specific parenting behaviors expected to satisfy the basic human needs, autonomy granting has drawn particular attention. Due to the dramatic increase in the need for independence and separation during adolescence (Grotevant & Cooper, 1986; Schneider et al., 2007), the aim of most studies has been to provide empirical evidence that autonomy granting parenting behaviors facilitate adolescents' autonomous self-regulation development through supporting and satisfying the adolescents' increased need for autonomy. Meanwhile, at the opposite pole of autonomy granting behaviors, psychologically controlling parenting behaviors interrupt adolescents' autonomous self-regulation development and their optimal social-emotional and academic adjustments by denying their need for autonomy (Ahmad et al., 2013; Marbell & Grolnick, 2012; Soenens & Beyers, 2012; Soenens et al., 2012; Soenens & Vansteenkiste, 2010). For instance, Soenens et al. (2012) examined Belgian and Korean adolescents to determine the detrimental effects of perceived parental psychological control on the adolescents' depressive symptoms. By comparing the structural models of the adolescents from both countries, they found similarities in the prevalence of the perceived psychologically controlling parenting behaviors and the essentially identical positive effects of the psychologically controlling parenting behaviors on the adolescents' tendency to be dependent and self-critical. These were regarded as a representation of frustrated need satisfaction (Blatt et al., 1992), which, in turn, exacerbated the adolescents' depressive symptoms in both Korea and Belgium.

There is another reason for the popularity of examining the function of autonomy granting parenting behaviors (and controlling parenting behaviors as the opposite pole) in the relationship with children's self-regulation development across different cultural contexts. There is much more room for diversity, particularly in how the meaning of "autonomy" or "controlling" is perceived in so-called *individualistic* versus *collectivistic* cultural contexts. In line with Chao's (1994) work, many researchers have examined how Chinese parents' controlling parenting behaviors affect their children's autonomous self-regulation development. Although numerous empirical studies have been aimed at identifying the cultural uniqueness in the meaning and function of the controlling parenting behaviors within the Chinese cultural context (which I will review in the next section), considerable research has also been conducted in light of the universal positive effects of granting autonomy and the universal negative effects of controlling within the socialization process of Chinese parents and their children. For instance, Chang et al. (2003) found that Chinese parents' coercive and controlling parenting behaviors predicted their preschool children's emotional dysregulation and subsequent aggressive behavior at school. Similarly, Nelson et al. (2006) investigated how physically coercive and psychologically controlling parenting behaviors affected preschool children's aggression within the Chinese cultural context, and they found that these two aversive parenting behaviors positively predicted the children's aggression. These findings uphold the common process view that controlling and coercive parenting may thwart children's need for autonomy and have a detrimental effect on the children's adjustment, including autonomous self-regulation development, regardless of culture. This is true even within the Chinese cultural context—something that cross-cultural scholars have regarded as representative of collectivistic cultures.

The different relationships between autonomy supportive parenting and children's self-regulation development across cultural contexts. While the SDT theorists have empirically and

theoretically ascertained the universally beneficial effects of autonomy supportive parenting behaviors (mainly autonomy granting parenting behaviors) on children's (mainly adolescents') positive outcomes, including autonomous self-regulation development, across different cultural contexts, cross-cultural researchers have consistently argued that there are cultural differences and uniqueness in the underlying mechanism in that relationship.

This culturally specific perspective is comparable with the work of Chao (1994, 1995, 1996, 2000, 2001, 2010), who has asserted the necessity of considering the cultural uniqueness of Chinese parenting to fully understand the nature of the parenting behaviors and their impact on children's development. According to Chao (1995), the concept of *guan*—referring to Chinese parents' care and love, as well as governance—influences Chinese parents to teach (and discipline) their children to behave in an appropriate and culturally accepted way, while maintaining a highly supportive and involved parent-child relationship. Thus, in some ways, the parenting behaviors characterized by *guan* are likely to relate to parental control, which has led some cross-cultural researchers to report that parental control is more common in China than in the West, after simply comparing the reported or observed frequency of parents' controlling behaviors.

However, scrutinizing parenting behaviors that appear somewhat controlling while considering the embraced indigenous aspects of these parenting behaviors (i.e., both governing *and* caring for) has led to changes in researchers' interpretations of the findings regarding discrepancies in the frequency of controlling behaviors. Furthermore, Chinese adolescents, who can understand the underlying indigenous meaning/intent of their parents' behaviors that Westernized researchers are likely to regard as somewhat controlling, view such behaviors as expressions of their parents' concern. Therefore, they are less likely to take those controlling behaviors on board (Chao & Aque, 2009; Cheah et al., 2009; Pomerantz & Wang, 2009; Soenens et al., 2012; Wang et al., 2007). In other words, the differences in the children's (and adolescents') perceptions of the meaning of their parents' autonomy granting/controlling behaviors may result in differences in the effects of these behaviors on the children's (and adolescents') autonomous regulation development, as well as in their emotional and academic functioning (Pomerantz & Wang, 2009; Wang et al., 2007). Moreover, the differences in the effects of the psychologically controlling parenting behaviors and autonomy granting on adolescents' functioning have been empirically proven longitudinally. Wang et al. (2007) found that the longitudinal positive effects of parents' autonomy support on adolescents' emotional and academic functioning were stronger in the United States than in China, while the longitudinal negative effects of parents' psychologically controlling behaviors on adolescents' emotional and academic functioning were also stronger in the United States than in China.

Numerous studies within the SDT field have provided empirical evidence of the universally beneficial effects of granting autonomy on children's (and adolescents') functioning as autonomously regulating agents and the detrimental effects of controlling parenting on children's functioning as autonomously regulating agents, regardless of culture. However, cross-cultural research aimed at demonstrating the cultural differences and uniqueness in the relationship between autonomy granting/controlling behaviors and children's adjustment has yielded interesting insights into how cultural models function in the mechanism underlying the relationship between autonomy supportive parenting (mainly autonomy granting behaviors) and children's (adolescents') functioning (including autonomous self-regulation/motivation) across different cultural contexts. These conflicting findings reinforce the need for a more nuanced understanding of parenting and children's self-regulation development within and across

different cultural contexts.

The proposed framework for examining parenting and (young) children's self-regulation development within and across different cultural contexts. By bringing together the viewpoints that have been advanced and the reviewed suggestions for future research, I will introduce the features of the proposed framework for examining the positive effects of autonomy supportive parenting in terms of facilitating children's self-regulation development.

First, I propose considering all three dimensions of autonomy supportive parenting behaviors suggested by the SDT theorists in examining the relationship between autonomy supportive parenting and children's self-regulation development. Of the parenting dimensions, autonomy granting versus controlling behaviors have been the focus of extensive research, but little attention has been paid to the other dimensions of autonomy supportive parenting (i.e., providing structure and being involved). Given that achieving autonomous self-regulation may necessitate all three parenting dimensions (i.e., autonomy support, structure, and involvement), according to the SDT theorists, such as Grolnick (2009), further systemic investigation into how these function in the relationship with children's autonomous self-regulation development would help to deepen our understanding of how each parenting behavior concurrently and individually contributes to children's autonomous self-regulation.

Second, there is universal acceptance of the SDT arguments that satisfying all three human psychological needs is beneficial for children's autonomous self-regulation, that providing the social contexts in which children can fulfill these three needs is important, and that parents play an important role in creating such optimal social contexts through granting autonomy (Grolnick, 2003; Ryan & Deci, 2000). However, it remains disputable whether there are embedded culturally unique meanings associated with the specific parenting behaviors and how indigenous cultural features affect the dynamics involved, either in differences in the effects or the prevalence of the (three) specific autonomy supportive parenting behaviors or their effects on children's self-regulation within and across different cultural contexts (Chao & Aque, 2009; Pomerantz & Wang, 2009). Thus, future studies must carefully consider indigenous aspects when exploring the specific proposed autonomy supportive parenting behaviors. Researchers must also consider how indigenous cultural features potentially modify the perceived meaning of the specific parenting behaviors, and accordingly modify the nature of the relationship between each of the autonomy supportive parenting behaviors and children's self-regulation development within and across different cultural contexts.

This begs the following question: *How can we attempt to uncover the potential indigenous factors associated with the culturally unique dimensions of parenting within and across different cultural contexts?* One suggestion is to cautiously apply a native appreciation of the particular culture (that is, apply an emic approach) in investigating specific parenting behaviors within a particular cultural context (Chao, 1994). For example, Chao (1994, 1995, 2000, 2001) provided indigenous and culturally rooted terms (i.e., *chiao shun* and *guan*) founded on Chinese Confucianism and distinctively relevant in describing Chinese parents' behaviors, following her own close inspection of the embedded meanings of Chinese parents' controlling behaviors. As a native researcher with a thorough comprehension of the Chinese cultural context, she enjoyed a valuable advantage in adopting the emic approach, which is vital to determining the nuances within a particular culture.

Although previous studies based on this indigenous cultural perspective have acknowledged the importance of considering culturally unique features in understanding the

nature of autonomy supportive parenting (particularly controlling parenting behaviors) and its effects on children's autonomous regulation within and across cultural contexts, they have failed to recognize that the indigenous cultural perspective assumes homogeneity among the members of a cultural group. For instance, in her studies, Chao (1994, 1995, 2000, 2001) arguably assumed that all Chinese parents and their children shared the indigenous concepts of *chiao shun* and *guan* in a similar manner, although she seemed to recognize the intra-ethnic group variability, as she did measure the parents' endorsement of various indigenous concepts. Therefore, her research overlooked the *within-group variations*; in other words, Chao did not take into account the possibility of there being individual differences in the extent to which Chinese parents endorsed these two indigenous concepts of parents' controlling behaviors or in how the Chinese adolescents perceived their parents' culturally unique controlling behaviors. Similarly, differences would exist in the effects of these culturally unique concepts of controlling behaviors on the children's (and adolescents') adjustment (i.e., academic achievement) within the Chinese cultural context. This is especially problematic when one considers that culture should not be confused with the stable theme applied to all the people within a particular, often nationally bounded, cultural context in a similar manner (Holloway, 2010; Gjerde, 2004; Turiel & Perkins, 2004).

Thus, we must take into account the potential within-culture variations in the dynamics involved in the differences in the effects or prevalence of the culturally rooted meaning/concepts of the three specific autonomy supportive parenting behaviors and their effects on children's self-regulation within a particular cultural context. To do this, it is crucial to scrutinize whether there are any *individual differences* in the extent of the endorsement of the indigenous concepts of autonomy supportive parenting behaviors or the effects of supporting autonomy on children's autonomous self-regulation development within a particular cultural context. It is also important to determine the factors leading to the within-culture variations and individual differences in that dynamic, such as structural (contextual) factors (such as SES), the parent's factors (e.g., social support, educational level, and inner resources), and the child's factors (e.g., age, gender, and temperament), and how those factors affect that dynamic.

Lastly, I propose considering the antecedents of the parents' efforts to parent in ways that support their children's autonomy in examining the relationship between parenting and children's self-regulation development. As stated earlier, numerous studies have claimed that parents' psychological resources or personality characteristics play a particularly important role in facilitating/impeding positive parenting, including autonomy supportive parenting (Barber et al., 2002; Belsky, 1984; Grolnick, 2003; Mills et al., 2007; Soenens et al., 2007; Verschueren et al., 2006). The present study's careful investigation of what makes parents choose or choose not to parent in an autonomy supportive way, particularly their psychological resources (e.g., PSE or enjoyment of parenting), may extend our understanding of the dynamic relationship between autonomy supportive parenting and children's autonomous self-regulation development.

Investigating the dynamic relationship between the antecedents of autonomy supportive parenting, the autonomy supportive parenting behaviors, and children's autonomous self-regulation development also requires accounting for the possibility that cultural orientation *does* also affect the dynamics involved in the prevalence of the antecedents of autonomy supportive parenting or on the effects of the antecedents of autonomy supportive parenting on the autonomy supportive parenting behaviors and children's self-regulation within and across different cultural contexts. For example, Suzuki et al. (2009) investigated whether differences existed in how PSE functioned in its relationship with positive parenting and whether there were differences in the

endorsement of this psychological resource in Japan and the United States. They found that the function of PSE in facilitating positive parenting was identical in Japan and the United States; however, the two cultural contexts differed somewhat in the extent of the endorsement of PSE, as the PSE of the Japanese mothers tended to be lower than that of the US mothers. They interpreted this trend as the result of a persistent conflict between Japanese husbands' paternalistic role at home—which is rooted in and influenced by the traditional Japanese cultural model—and wives' perceived dissatisfaction with their husbands' social support—which is influenced by the contemporary Japanese cultural model. Furthermore, since the Japanese mothers demonstrated responsive parenting behaviors and were actively involved in their children's schooling despite their relatively lower level of PSE, the authors advocated further studies to unravel this culturally unique relationship between low PSE and positive parenting behaviors, which differed from that explained theoretically by Bandura (1982, 1989).

Moreover, since cultural orientation should not be confused with the nationality or the stable theme shared by all people within a particular cultural context, it is also necessary to consider the possibility of potential within-culture variations in the dynamics involved in the antecedents of autonomy supportive parenting and their effects on children's self-regulation within a given cultural context. Thus, it is necessary to examine whether individual differences exist in the extent of the endorsement of the antecedents of autonomy supportive parenting or their effects on the autonomy supportive parenting behaviors and children's self-regulation. In addition, it is crucial to determine which factors lead to the within-culture variations (individual differences) within the dynamics, such as contextual factors, parents' factors, and child's factors, and the effects of those factors. Developing Suzuki et al.'s (2009) arguments, Holloway (2010) paid particular attention to individual differences in the nature of the culturally unique relationship between PSE and parenting behaviors in contemporary Japan. Although she also concluded that Japanese mothers were less likely to possess efficacy in their parenting behaviors, they nevertheless parented positively, and the Japanese children achieved more academically. The findings were identical to those of Suzuki et al. (2009), but Holloway (2010) went further, considering whether there could be potential individual variations in this culturally unique relationship. Applying the Japanese indigenous concept of *hansei*—the self-reflective process—as the factor decreasing Japanese mothers' PSE, she observed how the Japanese mother reflects this culturally unique self-reflective process in constructing her own PSE beliefs. That is, although most Japanese mothers go through the *hansei* process, some of them self-reflect in a productive way, and this process of self-reflection can spur mothers to seek new ways to compensate for their lack of ability, which produces positive parenting in spite of the low PSE, and vice versa. Holloway's (2010) scrutiny provides a good empirical example of the importance of considering within-culture variations in the dynamics of the relationship between parents' inner resources and their parenting behaviors. Furthermore, it highlights the value of an individual-oriented approach in investigating the relationship between the antecedents of positive parenting behaviors and parenting within a particular cultural context.

In sum, the proposed framework for examining parenting and children's self-regulation will incorporate the following features: (a) considering the possibility that cultural orientation *does* have an impact on the dynamics involved in the differences in the effects or prevalence of autonomy supportive parenting and its effects on children's self-regulation; (b) examining autonomy supportive parenting by considering its multi-dimensional nature; (c) taking into account how the antecedents of autonomy supportive parenting function in their relationships with autonomy supportive parenting and children's autonomous self-regulation development, by

considering the cultural impact on those dynamics; and (d) considering the potential within-group variations in the dynamics between the antecedents of autonomy supportive parenting and their relationship with autonomy supportive parenting and its effects on children's self-regulation. Applying these features to the current study, in the following section, I will examine parenting and children's self-regulation within the Korean cultural context.

Self-regulation and Parenting in Korea

Why is it important to explore Korean parenting and its relationship with children's self-regulation development? According to numerous reports, Korean students consistently rank at the highest levels on international academic achievement tests (Jeon, 2007; OECD, 2004). Consequently, researchers have paid special attention to Korean parents' socialization behaviors, characterized by an intense focus on educational attainment/achievements, and their culturally unique antecedents and consequences.

However, as Jeon (2007) described in her thesis, Korean parents' great passion for their children's high educational attainment, which is referred to as "Korean educational fever" (Lee, 2006), seems to be a "double-edged sword" for Korean children. Although it is known to be one of the most powerful contributors to Korean children's academic success, this phenomenon has also led to a tendency to display controlling parenting behaviors. In aiming to provide their children with the best opportunities to learn as much as they can at a young age and survive the competitive, examination-driven school environment, Korean parents are likely to control their children's everyday lives by monitoring their academic performance and giving them private lessons. This impedes the parents from satisfying their children's need for autonomy. Moreover, educational researchers have identified the pessimistic academic attitudes observed among many young Korean children as a problematic phenomenon (Bong, 2003). At the same time, Korean parents tend to overlook their children's development of social skills and autonomous self-regulation (Lee et al., 2010; Yang & Shin, 2008). Difficulties in regulating one's impulses may not be unrelated to the increasing suicide rates among Korean adolescents (Lee et al., 2010). Furthermore, and in the midst of the rapid change and modernization in South Korea, many contemporary Korean parents have been struggling with unresolved conflicts regarding what they should value in child rearing (Park & Kwon, 2009; Yang & Shin, 2008). As a result, many Korean parents may be suffering from a lack of confidence in their parenting behaviors, difficulties in establishing firm child-rearing principles, and a lack of enjoyment of parenting, all of which are expected to be precursors of ineffective parenting behaviors. Thus, it is necessary—even urgent—to explore Korean parenting behaviors and their relationship with Korean children's adjustment, specifically the extent to which Korean parents endorse autonomy supportive parenting and what influences Korean parents to parent in an autonomy supportive manner.

The dynamic relationship between autonomy supportive parenting behaviors and children's self-regulation development within the Korean cultural context: Features of the contemporary Korean cultural model. Before examining the dynamic relationships between the antecedents of autonomy supportive parenting, the specific autonomy supportive parenting behaviors, and children's autonomous self-regulation development within the Korean cultural context, it is necessary to examine the primary features of the contemporary Korean cultural model as it relates to child rearing.

It is best to address the strong emphasis on education first. Although the South Korean society has experienced dramatic changes in its cultural model due to rapid modernization (Kim et al., 2010; Schwartz et al., 2002), and accordingly has adopted many aspects of Western cultural models, Confucianism is still infused in its contemporary cultural model (Kim & Park, 2006). It is due to the influence of Confucianism that Koreans value learning and respect scholars. During the Chosun Dynasty (1392–1910), which was structured around a strict social hierarchy, the only way to progress to a higher social class was through educational success. For example, passing the extremely competitive national civil service exam and thus becoming a bureaucrat enabled an individual and his family to attain a higher social position. Furthermore, the South Korean economy has grown remarkably since the 1960s due to widespread industrialization, and the government has regarded the culturally unique emphasis on education as the primary contributor to the nation's development (Kim & Park, 2006). As part of the government's efforts to promote national competitiveness, it has strategically strengthened the association between earning an advanced degree and securing a prestigious job. In other words, those people who have an advanced degree are more likely to get a prestigious job, and completing higher education remains the most effective means of enhancing one's social position and earning economic benefits (Lee, 2006). Obtaining a degree from a renowned university has proved to be the most effective means of providing a pathway to a more comfortable living in South Korea. Since the Confucian cultural value placed on learning is intertwined with the government's efforts and strategies, the strong emphasis on education has become much more deeply rooted in the Korean cultural model.

Second, due to the intense passion for educational attainment and respect for learning, the percentage of the Korean population completing higher education has been increasing rapidly. This has naturally led to a gradual increase in opportunities for Korean women and girls to attain higher levels of education, in contrast to the treatment of women in the traditional male-dominated society that prevailed until a few decades ago. However, despite the increasing numbers of women completing higher education, the structure of contemporary Korean society has not been prepared to absorb them into the labor market, especially in prestigious jobs. This has left women frustrated due to the lack of opportunities for self-realization and the shortage of opportunities to apply what they learned in university. It is rather logical to expect the gender differences which exist in the aspirations or expectations for one's children and in one's everyday parenting behaviors, as mothers experience persistent sexism in the contemporary Korean society. Furthermore, their stifled passion may lead them to invest more deeply in their children's education, and thus derive satisfaction vicariously through their children's academic success. Moreover, the striking decrease in the birth rate in South Korea has made it possible for many young mothers to devote close attention to, and make a substantial investment in, the academic success of their one or two children. This trend may be strengthening the educational fervor in the contemporary Korean cultural context.

Another feature of the contemporary Korean cultural model is the parents' willingness to sacrifice for their children's education; and children's sense of indebtedness toward their parents for their sacrifice, abstracted from the *collectivistic cultural aspects*. According to the researchers advocating the indigenous perspective for understanding the Korean culture, Koreans tend to regard family, rather than the individual, as the basic unit (Kim & Park, 2006). Therefore, the relationships with significant others, particularly with family members—and more specifically the relationship between the parent and child—are especially important for Koreans (Jeon, 2007). Furthermore, Korean parents regard their children as a part of themselves; thus, they are

generally ready to sacrifice to raise their children successfully. The barometer of success in child rearing in contemporary South Korea is the children's educational achievement, which means that Korean parents are generally willing to make a large financial investment in their children's educational attainment. Thus, on the part of the children, it is natural, and even demanded, that they feel indebted to their parents. The desire and sense of obligation to repay their parents for their sacrifice may forcefully drive many Korean children to strengthen their own academic aspirations. Achieving educational success throughout their school years and earning admission to a prestigious university are viewed as the best means of filial piety within the Korean cultural context.

Lastly, the rapid changes that the contemporary Korean cultural model has undergone have caused an "unsettled period" or placed South Koreans "under the cultural lag," according to Swidler (2001). Using a study based on qualitative interviews, Park and Kwon (2009) determined that these rapid changes have prevented the development of a model that contemporary Korean mothers can rely on and principles or values related to child rearing. Thus, to avoid criticism, most contemporary Korean mothers simply replicate what they see other mothers doing for their children (Park & Kwon, 2009). The absence of a role model and child-rearing principles may lead to discrepancies between what the mothers believe and what they actually practice in terms of child rearing. Further, this might function as the source of their decreasing efficacy beliefs in exerting their parenting role and their increasing parenting stress (Park & Kwon, 2009; Yang & Shin, 2008).

The three specific autonomy supportive parenting dimensions and their relationships with children's autonomous self-regulation development in the Korean cultural context As I have addressed, to examine the relationships between the three autonomy supportive parenting behaviors (i.e., granting autonomy, providing structure, involvement) and children's self-regulation development within the Korean cultural context, both concurrently and individually, we must consider whether there are any indigenous features involved in these parenting behaviors.

The universal function of the three autonomy supportive parenting behaviors in their relationships with children's autonomous self-regulation development within the Korean cultural context. According to SDT, regardless of the cultural orientation, the psychological satisfaction of the needs for autonomy, competence, and relatedness is universally beneficial in facilitating children's autonomous self-regulation, and parents play an important role in providing their children with the optimal social context in which to fulfill their psychological needs by parenting so as to support their autonomy (Grolnick, 2003; Ryan & Deci, 2000). Many studies conducted in various cultural contexts have provided empirical evidence of the universally beneficial effects of autonomy supportive parenting (especially granting autonomy) on children's self-regulation development (Barber et al., 2002; Griffith & Grolnick, 2014; Marbell & Grolnick, 2012; Soenens & Vansteenkiste, 2010). However, few studies besides that of Soenens et al. (2012) have explored this relationship within the Korean cultural context. By comparing the structural models of Belgian and Korean adolescents, Soenens et al. (2012) reported universality in the detrimental effects of psychological controlling behaviors on adolescents' autonomous self-regulation, which is consistent with the findings of many cross-cultural researchers. Although the Belgian and Korean cultural models differ somewhat in terms of self-construal (i.e., Belgians exhibit relatively independent self-construal, whereas for Koreans it is relatively interdependent), the parents' psychological controlling may universally thwart their adolescent children's psychological need for autonomy within these two cultural contexts, and this may, in turn,

detrimentally affect the adolescents' autonomous self-regulation development. Their study provided empirical evidence that psychological controlling behaviors detrimentally affect adolescents' autonomous self-regulation, and demonstrated the universal importance of supporting children's (adolescents') satisfaction of psychological needs, particularly the need for autonomy, by granting autonomy within the Korean cultural context. However, we still know surprisingly little about whether the other two dimensions of autonomy supportive parenting behaviors (i.e., providing a firm structure and being involved) positively function universally in relation to children's autonomous self-regulation development within the contemporary Korean cultural context. Thus, further studies are required.

The culturally unique function of the three autonomy supportive parenting behaviors in their relationships with children's autonomous self-regulation development within the Korean cultural context. To investigate how the Korean cultural orientation uniquely functions, either in differences in the prevalence of autonomy-supportive parenting behaviors and their effect on children's self-regulation development, the indigenous features of a cultural model associated with child rearing must be considered. As previously mentioned, various cultural and historical contexts have led contemporary Korean parents to develop a great passion for their children's educational attainment. Korean parents' strong emphasis on education, despite its contribution to their children's academic achievement, has led to the emergence of controlling parenting behaviors. In other words, the passion for educational attainment has pushed parents to control their children's lives. I found from my teaching experience that many young Korean mothers were likely to control their child's daily schedule. They view such control as an effective strategy to help children achieve academic success.

Thus, it may be natural to expect many young Korean children to struggle with thwarted chances to satisfy their psychological needs, particularly autonomy. However, due to the influence of Confucianism, Korean children are expected to respect and obey their elders, especially parents. Historically, Korean parents have made long-term psychological and financial investments in their children's education. Their children have a sense of indebtedness due to their parents' sacrifice, and the children feel obligated to repay them. The parents' controlling behaviors may be perceived as an expression of concern, similar to that found in the Chinese context. Therefore, it is possible that Korean parents' controlling behaviors influence their children's autonomous self-regulation development somewhat differently from the manner framed by SDT theorists.

The perceived meaning of providing consistent and firm rules in advance, as well as the effect of providing structure for children's autonomous self-regulation development, must also be understood in terms of its cultural uniqueness. In particular, in terms of inconsistent parenting, as a good example being a lack of firm parenting rules, we must consider that many Korean children today face great pressure from their parents in their daily lives, due to the cultural emphasis on education. Many Korean parents provide their children with a successful educational experience. They also tightly manage their children's daily schedules with private lessons or cram schools. Within this context, for contemporary Korean children, who are struggling with these tightly-controlled daily experiences, their parents' inconsistencies might be perceived as behavioral characteristics of parents who are rather flexible or less controlling. This may lead children to feel liberated or released (i.e., autonomy).

It also needs to be noted that Korean culture emphasizes relationships. Accordingly, human behaviors are recognized as important when a person fits in and adjusts themselves appropriately to the social context in which these behaviors occur. Thus, it is arguably more

important to recognize that parenting behaviors may be different, flexible, or inconsistent, depending on the social context, rather than to regard the parenting behaviors as inflexibly unchanged. In other words, for Korean mothers and their children, “inconsistency” in their parents’ behaviors may not be perceived as negative. These differences in the perceived meaning of parents’ inconsistent behaviors can also cause differences in the relationship between inconsistent parenting and children’s self-regulation development. That is, inconsistency in parenting behaviors may not be as detrimental to children’s autonomous self-regulation as SDT theorists have argued. In fact, it may function positively, because it can contribute to fulfilling children’s need for autonomy.

Similarly, the perceived meaning of parents’ demonstrating their responsiveness by being involved in their children’s daily lives may differ from what SDT theorists have argued. As I noted, in my teaching experience, I found that many young Korean parents tend to be overly involved in their children’s daily lives. This seemed to be due to the cultural pressure to raise academically-successful children. Mothers may perceive children’s involvement in their daily lives as a form of control rather than as a condition for the basic psychological need of relatedness to be fulfilled. Moreover, since many Korean parents are excessively involved in their children’s daily lives and education, the children’s need for relatedness to develop autonomous self-regulation may be minimized.

Unfortunately, there is a shortage of research investigating these interesting possibilities that reflect differences in how the three specific autonomy supportive parenting behaviors are uniquely culturally perceived within the contemporary Korean cultural context, and how these parenting behaviors differently affect Korean children’s self-regulation development within this context. In addition, the parents’ excessive interest in their children’s academic performance has often caused them to overlook the importance of helping their children develop social skills, let alone self-regulation. This trend may lead to a weakening of the relationship between autonomy supportive parenting and the children’s self-regulation development in the contemporary Korean context. However, given the crucial role of self-regulation skills development in growing as a healthy social being (within the contemporary Korean cultural context also), further systematic studies are required to examine in a culturally sensitive way how these specific autonomy supportive parenting behaviors are conceptualized and function in their relationships with children’s self-regulation development in contemporary South Korea.

Parents’ psychological resources facilitating and affecting their autonomy supportive parenting and children’s self-regulation within the Korean cultural context. A thorough examination of the function of the antecedents of autonomy supportive parenting may also facilitate our understanding of the relationship between autonomy supportive parenting and children’s autonomous self-regulation development. As noted in the previous section, this involves paying attention to the parents’ psychological resources, specifically the enjoyment of parenting and PSE. In terms of how these two psychological resources function in the relationship with the autonomy supportive parenting and children’s self-regulation development within and across different cultural contexts, two perspectives may need to be applied—namely, universality versus cultural uniqueness—similar to how researchers have approached examining the relationship between parenting and children’s self-regulation within and across different cultural contexts.

Enjoyment of parenting within the contemporary Korean cultural context. Since the enjoyment of parenting was developed as a construct for the current study, it was not possible to review how the extent of the mothers’ enjoyment of parenting functions in the relationship with

their autonomy supportive parenting behaviors within a particular cultural context, such as South Korea. However, in South Korea, parental satisfaction—a similar construct, as both constructs involve parents' experience of positive emotions through exerting their parental role—has been investigated extensively as the crucial predictor of positive parenting behaviors, including autonomy supportive parenting behaviors and children's adjustment, and especially their social development (Cho & Hyun, 1994; Doh & Kim, 1997; Kim & Moon, 2006; Lee & Chung, 2007; Moon, 2001). For example, Moon (2001) found a positive relationship between parents' parental satisfaction and autonomy supportive parenting behaviors, such as reasoning guidance, and less authoritarian control (which corresponds to autonomy granting), consistent rule enforcement (which corresponds to providing firm rules) and affection, and parental involvement (which corresponds to involvement) among parents of kindergarteners. Similarly, Lee and Jung (2007) noted that mothers who had a greater degree of satisfaction as parents tended to show more acceptance and warmth. These extensive previous studies on parental role satisfaction and its relationship with the specific autonomy supportive parenting behaviors among mothers may provide empirical evidence of the identical function of parents' enjoyment through parenting behaviors and the parent–child relationship as a contributor to autonomy supportive parenting within the Korean cultural context.

For uncovering the mechanism of how the mothers' experience of positive emotion through exhibiting parenting behaviors and the parent–child relationship (e.g., feeling satisfaction or enjoyment through exerting one's role as a parent) facilitates the autonomy supportive parenting behaviors, the aforementioned broaden-and-build theory may provide a useful theoretical framework. According to this theory, experiencing positive emotions encourages people to pursue a wider range of thoughts and actions by supporting them with building varied personal resources. Applying this theory to the parenting dimension, we can expect that the more Korean parents experience positive emotions through their relationships with their children and satisfy and/or enjoy their parental role, the more likely they are to willingly choose to parent in positive ways (e.g., granting autonomy by providing their children with choices, providing firm rules in advance, and being proactively and appropriately involved in their children's lives). This may be true even if positive parenting requires parents to expend more energy and effort, and in situations that lack accessible resources for parents to use in their parenting.

However, at the same time, the native cultural climate that the parents face must be cautiously considered to better understand the patterns in the endorsement of the enjoyment of parenting or the function of the enjoyment of parenting, and the effect on autonomy supportive parenting and its relationship with children's autonomous self-regulation development. For instance, the striking changes in the contemporary Korean cultural model due to rapid modernization and industrialization and, accordingly, the lack of role models for parents may markedly increase the parents' stress levels when they perform their role. Extensive research has qualitatively described the culturally unique phenomena involved in the increase in parents' stress (Kwon, 2007; Park & Kwon, 2009; Yang & Shin, 2008). Since the more parents perceive stress in exerting their role as parents, the more likely they are to have difficulties in experiencing positive emotions through parenting (Kim & Moon, 2006), empirical findings that reveal an increase in the perceived stress that parents deal with may be related to their difficulties in enjoying their parental role. Considering that the Korean mothers are likely to have difficulty enjoying their parental role and the culturally unique perceived meaning of the three specific autonomy supportive parenting behaviors in the Korean cultural context, the nature of the

relationship between the enjoyment of parenting and autonomy supportive parenting behaviors (i.e., the effects of the enjoyment of parenting on autonomy supportive parenting behaviors) may differ from what the previous studies have shown. Thus, the contemporary Korean cultural and situational contexts must be thoroughly assessed in investigating the relationship between the enjoyment of parenting and specific autonomy supportive parenting behaviors.

Parenting self-efficacy within the contemporary Korean cultural context. The function of PSE as a psychological resource that facilitates autonomy supportive parenting among Korean parents has been extensively investigated (Ahn & Park, 2002; Choe, 2005; Kim & Doh, 2004; Kim & Moon, 2006; Yoon & Cho, 2011). For example, Choe (2005) examined the function of mothers' PSE in the relationship between their perceived social support and their parenting behaviors, and found that PSE significantly mediated that relationship. Specifically, perceived social support predicted the mothers' PSE level, and this, in turn, positively predicted their warmth-acceptance parenting behaviors and negatively predicted their rejection-restriction and permissiveness/non-intervention parenting behaviors. Similarly, aiming to establish a theoretical model to explain the parenting behaviors of those with preschool-age children, Yoon and Cho (2011) examined the relationship between perceived parenting stress, PSE (measured using the perceived parenting competence scale developed by Floyed, Gilliom, and Costigan [1998]), and responsive parenting behaviors (specified as child-centered, warmth, and sensitively responding to their children, developed by Koo [2004]) using structural equation modeling. They found that PSE significantly mediated the relationship between parenting stress and parents' responsiveness in their parenting behaviors. Interestingly, this study also found that PSE was the most important variable in explaining responsive parenting behaviors among Korean mothers of preschool children; thus, the authors suggested providing parent intervention programs with an emphasis on boosting PSE. These findings suggest the universally positive function of PSE as a psychological resource that mediates or moderates the relationship between the situational factors and parenting behaviors, and that it strongly facilitates positive parenting behaviors, particularly autonomy supportive parenting behaviors, in the contemporary Korean context.

However, despite the empirical evidence supporting the positive function of PSE in the relationship with autonomy supportive parenting, it might be possible to identify culturally unique patterns in the endorsement of PSE, or the effect of PSE on positive parenting, and how this relates to Korean children's outcomes. For example, given that vicarious experience has been theoretically proposed as a major predictor of PSE (Coleman & Karraker, 1997), Park and Kwon's (2009) qualitative study of upper-middle class Korean mothers with preschool-age children showed that the lack of role models on whom the mothers could rely to help them parent successfully using firm child-rearing values, rather than simply raising their children to be academically successful, may be related to the mothers' low PSE. Furthermore, the absence of cultural values involved in child rearing, which mothers could have adopted in their parenting behaviors (Park & Kwon, 2009; Yang & Shin, 2011), may have led to the huge discrepancy between what they believe they should do as parents and what they are actually doing. This discrepancy may facilitate a decrease in the mothers' level of parenting efficacy. Furthermore, similar to the enjoyment of parenting, it would be worthwhile to examine the culturally unique nature of the relationship between PSE and the specific autonomy supportive parenting behaviors by carefully considering the cultural uniqueness in the perceived meaning of these parenting behaviors.

Within-group variations in the dynamic relationships between parents' psychological resources, autonomy supportive parenting, and children's autonomous self-regulation

development within the Korean cultural context. It is important to understand whether the nature of the dynamic relationship between the antecedents of autonomy supportive parenting (particularly the two psychological resources), the specific autonomy supportive parenting behaviors, and children's autonomous self-regulation development within the Korean cultural context is universal or whether the indigenous features of the Korean context uniquely function within that dynamic. Therefore, I propose carefully considering whether the indigenous features of the contemporary Korean cultural model are involved in either the differences in the prevalence or perceived meaning of the parents' psychological resources or their specific autonomy supportive parenting behaviors, and the effects of these on Korean children's self-regulation development. However, since the Korean cultural orientation should not be confused with Korean nationality or a big theme that applies similarly to all Korean parents (Holloway, 2010; Gjerde, 2004; Turiel & Perkins, 2004), it is necessary to scrutinize whether there are any individual differences (within-group variations) in the dynamic relationships within the contemporary Korean cultural context, regardless of whether the nature of any of these dynamics is universal or culturally unique. Specifically, and as I addressed earlier, it is necessary to investigate (a) the factors leading to individual variations in the dynamics within the Korean cultural context, such as the structural (contextual) factors (e.g., SES), the parents' factors (e.g., social support, educational attainment, and inner resources), and the child's factors (e.g., age, gender, and temperament); and (b) how those factors affect the dynamics between contemporary Korean parents and their children.

How the structural (contextual) factors affect the dynamics among contemporary Korean parents and their children. First, structural (contextual) factors, such as a family's income or SES, or the quality of the neighborhood in which a family lives may produce variations in the relationships between parents and their children. As one of the culturally unique features affecting the structural (contextual) factors involved in within-group variations in the dynamics of the contemporary Korean culture, numerous indigenous Korean researchers have focused on the major financial crisis in South Korea in 1997 (known as the IMF crisis). This crisis affected the entire nation (and indeed almost all Asian countries) and widened the income gap between the rich and the poor, which ultimately caused an imbalance within the social hierarchy in South Korea (Hong et al., 2011; Lee et al., 2010). The huge discrepancies in family income and SES may relate to differences in the extent of parents' psychological resources, how parents choose to behave toward their children, and how much energy or money they invest in their children's education, which may ultimately be associated with the children's social and academic adjustments. Further investigation into how the Korean family's income or SES functions as a factor leading to individual differences in the relationship between the psychological resources, the proposed autonomy supportive parenting behaviors, and children's autonomous self-regulation would be warranted.

How parental factors affect the dynamics among contemporary Korean parents and their children. Parents' resources, such as perceived accessible social support, their level of education, and inner resources, may also cause individual differences in either the prevalence or perceived meaning of their psychological resources or their specific autonomy supportive parenting behaviors, and consequently the effects of these on Korean children's self-regulation development. The educational attainment of mothers, in particular, has been extensively investigated as a crucial factor related to parents' general positive parenting behaviors, in that obtaining a higher level of education provides mothers with more chances to obtain resources that they can use to raise their children (Black et al., 2003; Currie & Moretti, 2003).

This might not be exceptional within the Korean cultural context; *however*, Yang and Shin (2008) found that Korean mothers' emphasis on their children's education was consistently high, regardless of their level of education. All of the participants (Korean mothers of children between 2 and 12 years) reported that it would be necessary for their children to obtain a university degree. Given this strong emphasis on education, it is natural to expect culturally unique patterns in the relationship between a mother's level of education and her parenting behaviors. For example, the mother's level of education may not significantly predict the parenting behaviors associated with her child's education; she may strive to gather child-rearing resources at all costs, despite a shortage of opportunities to do so due to a lack of human capital. In light of this culturally unique phenomenon, we require a careful investigation of how Korean parental factors, and especially the mother's level of education, function in the dynamics within the contemporary Korean cultural context.

How the child's factors affect the dynamics among contemporary Korean parents and their children. Lastly, the child's dispositional characteristics, such as gender, age, and temperament, may produce variations in the dynamic relationships between the mother's psychological resources, the autonomy supportive parenting, and the child's autonomous self-regulation development within the Korean cultural context. In particular, as a factor involved in within-group variations in the dynamics, gender merits careful consideration, given the following two results of previous studies. First, as I addressed earlier, numerous previous studies identified gender differences in children's self-regulation development per se. Specifically, girls outperformed boys in the assessment of self-regulation development (Kochanska et al., 2001; Matthews et al., 2009). Researchers are still in the process of identifying what gender-related mechanisms function in self-regulation development, such as the differences in the area of the brain activated in the regulatory process, and their results necessitate careful investigation and integration. Second, the gender differences in the antecedents of self-regulation development demand attention. Most significantly, many previous studies found gender to be a factor in socialization (i.e., autonomy supportive parenting behaviors). Specifically, these studies clarified that considerable differences appear in terms of what parents expect from their male and female children regarding autonomy and relatedness, as well as in the children's behaviors and the parents' responses to them. In other words, the parents tended to emphasize autonomy in boys and relatedness in girls (Leaper, 2002; Zahn-Waxler, 2000). More specifically, these studies showed that the parents socialized their daughters from birth to promote mutual closeness and raised them to emphasize dependence and compliance (Gurian, 1987; Hill & Lynch, 1983; Kavanagh & Hops, 1994; Leaper, 2002). These results make it possible to hypothesize that the strength or nature of the relationship between the autonomy supportive parenting behaviors and children's self-regulation may differ between boys and girls within a particular cultural context. Additionally, we can anticipate that these methodic differences in socialization depending on the child's gender can produce gender differences even when the mother's psychological resources function in the relationship with autonomy supportive parenting. That is, the nature or the strength of the relationship between the mother's psychological resources and her autonomy supportive parenting behaviors may differ for boys and girls.

However, these gender differences in the relationship between (autonomy supportive) parenting and children's self-regulation, and in the relationship between the mothers' resources and their autonomy supportive parenting, can have different aspects depending on the cultural context. In fact, on the basis of Hofstede's (1998) research results, Dennis et al. (2007) hypothesized that the expectation for boys to exercise autonomy would be more emphatic than

for girls in the child rearing in Japan, where masculinity occupies a superior position to femininity. Thus, Dennis et al. (2007) examined gender differences in the extent of the emphasis on autonomy by analyzing the verbal expressions of 30 Japanese and 30 American mothers and their preschool age children in terms of the autonomy and relatedness of the mothers and their children. They found that while the American mothers tended to emphasize autonomy for the girls more so than for the boys (this tendency may have been due to the endeavor of the American mothers to overcome a gender stereotype), the Japanese mothers tended to emphasize autonomy for the boys more so than for the girls. Hence, we can interpret these results as evidence that the gender differences in parenting behaviors show patterns that are culturally unique. Besides, this cultural uniqueness in the relationship between gender and socialization might suggest the culturally unique pattern of the gender differences in the nature of the relationship between autonomy supportive parenting and the child's self-regulation development.

Considering that Japan and Korea have many shared cultural aspects, including Confucianism, we might expect similarities between the two cultures in terms of parenting behaviors. In fact, the Korean society has traditionally been male-dominated, and its indigenous cultural model has uniquely emphasized raising "masculine" boys and "feminine" girls (under the influence of Confucianism) (Hong et al., 2011). Hence, there tend to be huge differences in the rearing of boys and girls, despite the changes in, and the modernization of, the contemporary Korean cultural model. However, at the same time, considering the emphasis of children's educational achievement within the contemporary Korean cultural context, regardless of the child's gender, one can easily expect the parents to try to foster more active and autonomous behaviors in both girls and boys with respect to their academic achievements. In addition, as I discussed earlier, since the current generation of Korean mothers has had more equal opportunities for education as compared to previous generations that lived in the traditional Korean society, many women now have access to high levels of education. Nevertheless, this generation has had difficulty with building careers, as the social structure remains unequal. Therefore, we must thoroughly consider if the experiences of those who have been frustrated due to the gender stereotypes tend to socialize their children to conform to gender differences or if they tend to socialize their children to overcome the stereotypes and ignore gender differences. Future studies are warranted regarding the culturally unique pattern that these culturally-related gender differences can form in the parenting within the contemporary Korean cultural context, specifically in terms of promoting children's self-regulation development in relation to the mothers' psychological resources, which support an autonomy supportive approach to parenting.

Unfortunately, few studies have explored individual variations in the dynamic relationships between the antecedents of autonomy supportive parenting, particularly parents' inner resources (e.g., enjoyment of parenting and PSE), the specific autonomy supportive parenting behaviors, and children's autonomous self-regulation development within the Korean cultural context. Hence, a systemic exploration of this dynamic, considering the factors leading to individual differences within the contemporary Korean cultural context, would be beneficial for understanding how Korean mothers' enjoyment of parenting and PSE enable them to parent in a way that supports their children's autonomy, which, in turn, facilitates their children's academic achievement.

The Current Study

This study's aim was to explore the prospective relationships between mothers'

psychological resources (i.e., PSE and enjoyment of parenting), autonomy-supportive parenting (i.e., harshness, permissiveness, inconsistency, and responsiveness), children's self-regulation development (emotional and cognitive), and children's academic performance within the particular cultural context of South Korea. The specific aims are presented below.

First, this study was aimed at examining whether there is a significant association between autonomy-supportive parenting and children's self-regulation. In particular, since many previous studies examined only the association between general parenting types (broadly defined) and children's self-regulation, the present study paid particular attention to how specific autonomy-supportive parenting behaviors are associated with children's self-regulation development. In addition to previous research, the cultural uniqueness in the perceived meaning or function of those specific autonomy-supportive parenting dimensions in Korea was considered. I expected that harsh parenting, or parents' overuse of power, would somewhat positively predict children's self-regulation. This hypothesis was based on the premise that Korean children are expected to respect and obey their parents, due to the influence of Confucianism. Furthermore, historically and culturally, Korean parents have tended to make long-term financial and psychological investments in their children's education. As a result, their children have been expected to feel indebtedness towards their parents. Given this cultural context, parents' harsh parenting was not expected to be highly negatively associated with children's self-regulation, as SDT theorists have asserted. Instead, I expected that Korean parents' harsh parenting would be somewhat positively associated with their children autonomously regulating their emotions and behaviors.

The two specific parenting behaviors that represent the lack of firm structure may impede children from fulfilling their needs for competency. Thus, it is possible to hypothesize that permissive and inconsistent parenting would negatively affect children's self-regulation development. However, inconsistent parenting, in particular, may not be perceived as harmful among contemporary Korean children as it is in individualistic cultural contexts. This is because, culturally and traditionally, educational attainment has been strongly emphasized in Korea. Researchers have addressed the association between this cultural aspect and Korean mothers' tendency to push and control their children's daily lives, aiming to provide them with a successful educational experience. Accordingly, for Korean children who may be struggling with the pressure of educational success from their parents and their tightly-controlled daily lives, inconsistency in parenting behaviors may be perceived as providing autonomy or flexibility. Thus, I expected that inconsistent parenting would somewhat positively predict children's self-regulation in the Korean cultural context.

I expected that responsive parenting would not significantly contribute to Korean children's self-regulation development. Of course, responsive parenting has been generally regarded as competent parenting and an important predictor of children's outcomes in various developmental areas, including self-regulation development. However, it has been consistently pointed out that the contemporary Korean mothers have tended to be overly involved in their children's daily lives to provide them with educational experience from a very young age. This may be due to the contemporary Korean mothers' unique cultural aspects, as such their over-emphasis on their children's educational attainment. Considering these unique cultural aspects, it is possible to hypothesize that the effect of responsive parenting of Korean mothers on children's self-regulation development may be minimized.

Moreover, I hypothesized that children's self-regulation would mediate the association between autonomy-supportive parenting and children's academic skills. As many previous

studies have found, the proposed specific autonomy-supportive parenting behaviors predicted children's academic performance. In addition, the high correlation between self-regulation and academic performance has been addressed. Given these previous findings, I aimed to explore the specific function of self-regulation as a mediator in the relationship between those parenting behaviors and academic performance. This may help clarify the complicated relationship between the three specific autonomy-supportive parenting behaviors, children's self-regulation development, and children's academic performance.

Second, as another way to better understand the association between autonomy-supportive parenting and children's self-regulation development, this study examined how the antecedents of autonomy-supportive parenting suggested by previous studies function in the relationship with autonomy-supportive parenting. As specific antecedents, two psychological resources were suggested: PSE and the enjoyment of parenting. Based on previous studies on the positive effect of PSE and mothers' positive emotional experience on their competent parenting behaviors across diverse cultural contexts, I expected that both PSE and the enjoyment of parenting would positively predict responsive parenting behaviors and negatively predict harsh, inconsistent, and permissive parenting behaviors.

Furthermore, in terms of the specific function of the two mothers' psychological resources, it was expected that these two would *indirectly* affect children's self-regulation development through autonomy-supportive parenting. This hypothesis was based on the positive association between the three pairs of the variables mentioned above: a) the hypothesized positive association between mothers' psychological resources and autonomy-supportive parenting; b) autonomy-supportive parenting and children's self-regulation; and c) previous findings of the positive association between mothers' psychological resources and children's outcomes (e.g., Ardelet & Eccles, 2001; Bogenschneider et al., 1997; Bohlin & Hagekull, 1987), including children's self-regulation (Brody et al., 1999; Murry & Brody, 1999; Purdie et al., 2004).

Third, aiming to better understand the above-mentioned, hypothesized mediated relationships within the Korean cultural context, I hypothesized that within-group variations exist among Korean mothers and their children in those mediated relationships. This hypothesis was based on the previous findings of socio-cultural researchers who asserted the importance of considering the possibility of individual variations in the cultural model within a particular cultural context. This is because individuals actively construct their own cultural models by choosing whether or not to accept the cultural models shared by their cultural groups, according to their characteristics or environment, instead of passively adopting the entire cultural model provided to them. Specifically, I examined whether the mother's education or the gender of her child moderates the association between the mother's psychological resources, autonomy-supportive parenting, children's self-regulation, and academic skills.

CHAPTER THREE

Method

Larger Study Design

The current study is part of a larger international project involving (the number of total sample) kindergarteners and first and second grade students that began in 2010 and is being conducted across the United States, Japan, and Korea. The primary investigators include Dr. S. D. Holloway and Dr. S. Suzuki. In Korea, Dr. U. Kim and Dr. Y. Park have joined this project and primarily lead the Korean team in collecting data from Korean kindergarten and elementary schools.

The main objective of the larger study is to develop a valid and reliable measure of parenting self-efficacy (PSE) for culturally and linguistically diverse parents of young children. Furthermore, we aim to provide accurate information about the demographic and psychological antecedents of PSE in different cultural contexts. Our research will also shed light on the relationship between PSE and social and academic outcomes for children in these populations.

Participants

The participants in the present study were 234 Korean mothers drawn from a larger sample of families of kindergarteners in the Incheon city area in South Korea. The inclusion criteria for our larger study were as follows: the mothers must (a) be married or in a steady relationship and (b) be the biological or adoptive mother of one child in kindergarten. Their children's social competence and academic skills were rated by each child's teacher. The participant children whose teachers reported their social competence and academic skills were only included for the analysis of the current study. Table 3.1 shows selected demographics of the mother and child sample.

Table 3.1
Mother and child demographic characteristics

Mean age	M	SD
Maternal age in years	37.41	4.01
Child age in months	70.76	6.81
Maternal educational attainment	N	%
No formal schooling	1	.4
Graduated from middle school	1	.4
Graduated from high school	105	44.9
Junior college or vocational school experience	72	30.8
Bachelor's degree	46	19.7
Graduate or professional degree	8	3.4
Family annual household income level	N	%
Under KRW 12,000,000 ^a	5	2.1
KRW 12,000,001–KRW 24,000,000	21	9.0
KRW 24,000,001–KRW 36,000,000	62	26.5
KRW 36,000,001–KRW 50,000,000	66	28.2

KRW 50,000,001–KRW 75,000,000	37	15.8
KRW 75,000,001–KRW 100,000,000	12	5.1
Over KRW 10,000,001	4	1.7
Unsure/missing (item left blank)	19	11.5

^aapproximately \$10,175 U.S. dollars

The mothers reported the mean age (in months) of their children. Children were between 58 months and 81 months old ($M = 70.76$ months, $SD = 6.81$). The gender of the children was relatively equally distributed: 116 males (49.6%) and 118 females (50.4%).

On average, mothers were 37.41 years old ($SD = 4.01$). Less than 1% of the mothers identified as having no formal schooling or having graduated from middle school. Considering that in Korea the duration of compulsory education is middle school graduation, most of the participants of the present study completed a high-school education or more at their own expense. Specifically, 44.9% of the mothers identified as having graduated from high school. More than 50% of the mothers identified as having higher education (30.8% of identified as having junior college or vocational school experience, 19.7% identified as having a bachelor's degree, and 3.4% identified as having a graduate or professional degree).

More than half of the participants of the present study (54.7%) reported an average annual income between KRW 24,000,000 and KRW 50,000,000. Given that the Korean Ministry of Health and Welfare estimated the median annual income of the average Korean household—which has four family members—to be KRW 50,640,000 (approximately \$43,044 U.S. dollars) in 2015 (Korean Ministry of Government Legislation, 2015), the annual household income level of the participants was lower than that of the general population.

Procedures

The Korean research team contacted the principals of four kindergartens in the Incheon city area about recruiting parents to participate in the study. After receiving support letters from the participating kindergarten principals, we sent letters to the participating kindergarten classroom teachers, asking them to distribute our invitation letter and survey packet to the parents of their students. The invitation letters to both the teachers and parents explained the overall purpose of the study, procedures, benefits and potential risks/discomforts, and confidentiality. The parent survey was administered in October 2012. Further, the Korean research team asked the teachers to complete an assessment of each of their students' social competence in the classroom on a scale containing 25 items describing the child's social competence. The team also requested that the teachers rate each child's academic skills. As remuneration, the participating parents and teachers received a small gift upon completing the survey. The procedures, including the use of consent and the contents of the survey instruments, were approved by the university's Institutional Review Board.

Measures

A bilingual member of the US research team translated all of the survey items, which had originally been written in English, into Korean. The Korean version of the survey was sent to the Korean research team, who checked for culturally-ecologically inappropriate

expressions/terminology in Korean. In order to ensure that the English and Korean versions conveyed the same meaning, a native Korean speaker who was also fluent in English, but not familiar with the subject of the current project, performed a back translation (following the recommendation of Foster & Martinez, 1995).

Parenting self-efficacy. In the present study, mothers' PSE was assessed using the Berkeley Parenting Self-Efficacy Scale - BETA version. The BPSE-BETA is a revision of an earlier tool (the Berkeley Parenting Self-Efficacy Scale or BPSE) developed as a part of a longitudinal study investigating PSE in the US and Japan (Holloway et al., 2005). Based on the insights they had gained from this early work, Suzuki and Holloway subsequently developed a revised version of the scale, the BPSE-BETA. The final version, called the Berkeley Parenting Self-Efficacy Scale - Revised, differs from the BETA version only in that it contains 10 fewer items. The BPSE-R authors recommend that investigators use factor analytic techniques if they wish to identify subscales, a procedure consistent with the approach taken in this dissertation.

Based on the results of explanatory factor analysis, four subscales of the BPSE-BETA were proposed: (a) anger management (4 items), (b) closeness communication (5 items), (c) academic skills and school prep (8 items), and (d) good mother (11 items). Each item is rated on a Likert scale from 1 (not at all confident) to 6 (very confident). The items of the anger management subscale elicited the mothers' sense of PSE in controlling emotions while interacting with their child. The statistical means of the four items were used to create a composite score representing mothers' *anger management efficacy*. Examples of the items include:

- How confident you feel controlling anger or frustration?
- How confident you feel avoiding over-reacting when your child misbehaves?

The items of the closeness communication subscale elicited the mothers' sense of PSE in helping to cultivate a close parent-child relationship through communicating positively. The statistical means of the five items were used as a composite score for *closeness communication efficacy*. Examples of the items include:

- How confident you feel listening to your child?
- How confident you feel setting a good example by being polite and respectful to others?
- How confident you feel explaining things so that your child will understand?

The items of the academic skills & school prep subscale elicited the mothers' sense of PSE in supporting their child's academic skills and promoting physical health, which is important for facilitating young children's adjustment to school. The statistical means of the eight items were used to create a composite score representing the mothers' *academic skills & school prep efficacy*. Examples of the items include:

- How confident you feel helping your child learn to count things correctly?
- How confident you feel helping your child enjoy reading a picture book?
- How confident you feel helping your child eat a variety of nutritious foods?
- How confident you feel helping your child get enough exercise?

The items of the good mother subscale elicited the mothers' sense of PSE in supporting their child with cultivating social/emotional skills and effortful cognitive regulation skills. The statistical means of the 11 items were used to create a composite score representing the mothers' *good mother efficacy*. Examples of the items include:

- How confident you feel helping your child get along with other children?

- How confident you feel helping your child care about other people's feelings?
- How confident you feel helping your child pay careful attention to what he/she is doing?
- How confident you feel helping your child behave well without being told to do so by an adult?

And, the statistical means of all the items (28 items) were used to create a composite score representing the extent of mother's level of parenting self-efficacy.

I conducted a confirmatory factor analysis using maximum likelihood estimation in AMOS 21.0 for Windows to examine whether this four-factor model fits the data of the Korean mothers. *Those* four composite scores were used as the indicators of the latent construct parenting self-efficacy in the structural equation modeling analysis.

Enjoyment of parenting. The parents' self-reports on the Weinberger Parenting Inventory - Parent Version assessed enjoyment of parenting (Weinberger, Feldman, & Ford, 1989). Six items assessed the intensity of the parents' enjoyment in their parenting role (5 point scale ranging from 1 = false or mostly false to 5 = true or mostly true). Example items include: I really enjoy spending time with my child. The statistical means of the 11 items were used to create a composite score representing the extent of mother's (level of) enjoyment of parenting. In order to explore whether these 11 items reflect the latent construct "enjoyment of parenting" satisfactorily, a confirmatory factor analysis using maximum likelihood estimation in AMOS 21.0 for Windows was also conducted.

Autonomy-supportive parenting behaviors. Eighteen items from the Weinberger Parenting Inventory-Parent version measured the "autonomy-supportive parenting behaviors" (Weinberger, Feldman, & Ford, 1989). This scale, validated with a large sample of young children and adolescents in the United States (Feldman & Weinberger, 1994), consisted of two sets of items: items assessing the degree of intensity of a parenting experience (5-point scale ranging from 1 = *false or mostly false* to 5 = *True or mostly true*), and items assessing the frequency of a parenting experience (5-point scale ranging from 1 = *Almost never* to 5 = *Almost always*). These items tap into the parenting dimensions that SDT theorists have proposed as the ones that support or interrupt self-regulation development (e.g., autonomy-supportive parenting).

Four items assess the extent of the parents' *responsiveness/warmth*. Examples of the items include:

- I spend a lot of my free time doing things with my child or taking him/her places.
- I often tell my child how proud I am of him/her.

A second group of three items assesses *power assertive/coercive parenting*, which is regarded as the polar opposite of the "autonomy granting" parenting dimension. Some examples of the items include:

- I threaten my child with kinds of punishments I would never actually use.
- My child feels my punishments are unfair.

A third group of ten items assesses *providing structure versus chaotic parenting (lack of structure)*, which is regarded as the polar opposite of the "providing structure" parenting dimension, represented as permissive parenting (4 items) and inconsistent parenting (6 items). Examples of the items representing permissive parenting include:

- I let my child get away with things that maybe I should be tougher about
- I back down from a threatening punishment if my child really gets upset and might

“make scene”.

Examples of the items representing inconsistent parenting include:

- I have a habit of suddenly getting upset about things after letting them “slide” for a while.
- The punishments I decide on are often influenced by what mood I am in.

The statistical means of the corresponding items were used to create the composite scores reflecting the four autonomy-supportive parenting factors (i.e., responsiveness, power assertive/coerciveness, permissiveness, and inconsistency). I also conducted a confirmatory factor analysis using maximum likelihood estimation in AMOS 21.0 for Windows to examine whether this four-factor model represent autonomy-supportive related parenting behaviors among Korean mothers adequately.

Child’s self-regulation skills. In order to measure the two dimensions of child’s self-regulation skills (emotional self-regulation skills and effortful cognitive regulation), I selected 15 items from the Social Competence Scale - Teacher Version (Conduct Problems Prevention Research Group, 1990). This scale was initially developed to measure children’s social and emotional competence, and includes three subscales: (a) pro-social/communication skills (8 items), (b) emotional regulation skills (10 items), and (c) academic skills (7 items). Each item pertains to a child’s behavior that is observable at school. The teachers rated how well each item describes the child from 1 = not at all to 5 = very well. For this study, I used the items representing emotional regulation skills (10 items) and academic skills (7 items).

Some examples of the items in the emotional regulation skills subscale are: *the child controls temper when there is a disagreement; the child can calm down when excited or all wound up*. The mean score of these 10 items was calculated to create a composite score representing the extent of child’s *emotional self-regulation skills*.

Sample items in the academic skills subscale, which measured the children’s effortful cognitive regulation skills attainment, include: *the child is a self-starter; the child functions well even with distractions*. Given the confirmatory factor analysis result, two items were dropped (i.e., *the child works well in a group*; and *the child follows teacher’s verbal directions*). The mean score of the five items was calculated to create a composite score representing the extent of child’s *effortful cognitive regulation skills*.

In order to explore whether the corresponding items reflect child’s emotional and cognitive self-regulation development respectively, a confirmatory factor analysis using maximum likelihood estimation in AMOS 21.0 for Windows was also conducted.

Academic skills. The responses from the teachers’ survey determined the children’s academic performance, indicating the measurement of the children’s academic skills. The teachers rated how good the child is at the following subjects: addition/subtraction; reading/writing; story composition/expression; physical activity/dance routine; painting/crafting; and music. The teachers rated these on a 5-point scale, where 1 = *very bad* and 5 = *very good*.

For this study, I used the teacher-rated scores for addition/subtraction, reading/writing, and story composition/expression. The mean score for these three subjects was calculated to create an indication of *child’s academic skills*.

Analytic strategies

The proposed analyses proceeded through the following process for each of the research

questions.

Confirmatory factor analysis. As described in the Methods section, confirmatory factor analysis was conducted to reveal the factor structure for the measures of all variables of interest among the Korean mothers and their children.

There were two goals for running CFA in the present study: 1) to test whether the data of Korean mothers and their children fit the proposed factor structure of the latent variables, which has not been used for the Korean population (i.e., parenting self-efficacy) satisfactorily; and 2) to examine whether the factor structures of the latent variables, which are created for analyzing the present study models (i.e., enjoyment of parenting, autonomy supportive related parenting behaviors, the two dimensions of child's self-regulation, and child's academic skill), are adequately measured.

Bivariate correlation analysis. I conducted the correlation analyses of the major variables of interest using computer software, SPSS version 20.0 for Windows (SPSS Inc., 2012). I analyzed the composite scores, as described in the Methods section.

Structural equation modeling. In order to examine how the specific autonomy-supportive parenting behaviors mediate the relationship between the mothers' psychological resources (PSE and enjoyment of parenting) and the children's self-regulation development and academic skills in Korea, I conducted structural equation modeling (SEM) analysis using the AMOS computer software version 21.0 for Windows. I evaluated the fit of the model and re-specified it in an iterative manner.

In addition, I explored the moderating effects of a child's gender and mother's level of education through multi-group analysis.

I also tested the possibility that children's regulation might predict academic skills that would promote mothers' psychological resources, which themselves would trigger the four specific autonomy-supportive related parenting behaviors. This alternative child-directed model was compared with the hypothesized models as a post-hoc analysis that sought to clarify whether children or mothers directed the sequence of connectedness among mothers' psychological resources and autonomy-supportive parenting and children's self-regulation and academic skills.

CHAPTER FOUR

Results

Descriptive Statistics

The descriptive statistics of study variables are presented in the Table 3. In order to check the normality of the variables, I used the cutoffs of two and seven for skewness and kurtosis, respectively, recommended by West, Finch, and Curran, (1995). All of the main variables were normally distributed.

Table 4.1

Descriptive statistics of main study variables

	N	MIN	MAX	Mean	SD	Skewness	Kurtosis
<i>Mother's psychological resource</i>							
Parenting self-efficacy	234	1.79	5.64	3.94	.77	-.26	-.05
Enjoyment of Parenting	234	1.50	5.00	3.72	.61	-.35	.26
<i>Autonomy-supportive related parenting</i>							
Harshness	234	1.00	4.00	2.45	.69	-.12	-.59
Permissiveness	234	1.00	3.75	1.88	.66	.67	.13
Inconsistency	234	1.00	4.00	2.38	.62	-.03	-.44
Responsiveness	234	2.25	5.00	3.93	.60	-.48	-.12
<i>Child's outcome</i>							
Emotional self-regulation development	234	1.40	5.00	3.46	.68	-.32	-.04
Cognitive self-regulation development	234	1.71	5.00	4.65	.74	-.29	-.29
Academic skills	234	1.00	5.00	3.52	.89	-.36	-.17

Measurement Models (The Results of Confirmatory Factor Analysis)

For each measure, the latent factors (constructs) were indicated by the corresponding items. The error variances of the manifest variables were allowed to be correlated with each other. AMOS 21.0 maximum likelihood estimation was used to test the “measurement” models. In terms of the cut off criteria for a relatively good fit with the data and the hypothesized model, I used the cutoff criteria suggested by Hu and Bentler (1999) as the standard for a satisfactory fit: Comparative fit index (CFI) >.95, and root mean square error of approximation (RMSEA) <.06 (Hu & Bentler, 1999).

Parenting self-efficacy. The four-factor model for Parenting Self-Efficacy (Anger Management; Closeness Communication; Academic skills & School prep; and Good mother) fits the data acceptably, chi-square ($n=234$, $df=331$) = 640.651; $p=.000$, CFI=.916, RMSEA=.063. All the model-estimated loadings were significant and in a positive direction. Alpha reliabilities within this sample were .769 (4 items) for anger management, .843 (5 items) for closeness communication, .839 (8 items) for academic skills and school prep, and .921 (11 items) for good mother.

Enjoyment of parenting. The model for enjoyment of parenting fits the data well, chi-square ($n=234$, $df=8$) = 10.686; $p=.220$, CFI=.990, RMSEA=.038. All the model-estimated loadings were significant and in a positive direction. The alpha reliability within this sample was .688 (6 items).

Autonomy-supportive related parenting behaviors. The four-factor model for autonomy-supportive related parenting behaviors (harshness, permissiveness, inconsistency, and responsiveness) fits the data acceptably, chi-square ($n=234$, $df=111$) = 168.547; $p=.000$, CFI=.900, RMSEA=.047. All the model-estimated loadings were significant and in a positive direction. Alpha reliabilities within this sample were .621 (3 items) for Harshness, .653 (4 items) for Permissiveness, .583 (6 items) for Inconsistency, and .584 (4 items) for Responsiveness.

In this current study, I was interested in exploring the effects of the specific parenting behaviors (e.g., these four autonomy supportive related parenting behaviors) rather than a latent construct (e.g., something like “authoritative” or “authoritarian” types; “positive” or “negative” parenting style).

Child’s self-regulation: (1) Emotional self-regulation. The model for emotional self-regulation fits the data acceptably, chi-square ($n=234$, $df=29$) = 63.251; $p=.000$, CFI=.978, RMSEA=.071. All the model-estimated loadings were significant and in a positive direction. The alpha reliability within this sample was .924 (10 items).

Child’s self-regulation: (2) Effortful cognitive self-regulation. The model for effortful cognitive self-regulation fits the data acceptably, chi-square ($n=234$, $df=3$) = 6.560; $p=.087$, CFI=.995, RMSEA=.071. All the model-estimated loadings were significant and in a positive direction. The alpha reliability within this sample was .888 (5 items).

Academic skills. The model for academic skills fits the data perfectly (the saturated model), chi-square ($n = 234$, $df = 0$) = 0, and CFI = 1.000. A saturated model is one in which the number of observed variables is equal to the number of parameters (that is, it has zero degrees of freedom). Because the model fit indices are calculated based in part on the number of degrees of freedom (and this must be positive), the model fit cannot be applied to determine how well the model fits the data.

All the model estimated loadings were significant and in a positive direction. The alpha reliability within this sample was .862.

Zero-order Correlations

Relations between demographic variables, maternal variables, and child variables.

No significant relationships between demographic variables (family's annual income level, maternal level of education, family's SES level, and focal child's gender) and the extent of Korean mothers' psychological resources were found (Table 4.2). There was no statistically significant difference in the extent of Korean mothers' psychological resources by family's structural factors and focal child's gender.

No significant relationships between maternal level of education and SES level and autonomy-supportive parenting behaviors were found (Table 4.2). There was no statistically significant difference in the extent of Korean mothers' autonomy-supportive parenting behaviors by maternal level of education and SES level. Only family annual household income level was positively associated with the extent of Korean mothers' inconsistent parenting behaviors ($r = .137, p < .05$).

However, focal child gender was positively associated with the two dimensions of self-regulation skills (emotional regulation skills and effortful cognitive regulation, $r_s = .331$ and $.349$, respectively, $p_s < .001$) (Table 4.3). The positive Pearson correlation coefficient values indicate that Korean kindergarten girls showed higher emotional and effortful cognitive regulation skills than boys. However, none of the family's structural factors (family's annual income level, maternal level of education, and family's SES level) were associated with Korean children's self-regulation skills.

Table 4.2

Bivariate (Zero-order) correlations between demographic variables and mothers' variables

	Mothers' variables					
	Psychological resource		Autonomy-supportive related parenting			
	PSE	Enjoyment of parenting	Harsh	Permissive	Inconsistent	Responsive
Child's gender	.063	-.074	-.066	-.120	-.058	.024
Family's Annual Household income	-.004	.017	.083	.032	.137*	-.111
Mother's Educational level	.120	.082	.021	.028	-.003	.062
Family's SES level	.058	.034	.050	.028	.100	-.045

Note: Family's SES level was composited by calculating the mean of focal family's annual household income and mother's educational level.

* $p < .05$

*** $p < .001$

Table 4.3

Bivariate (Zero-order) correlations between demographic variables and child's variables

	Child's variables		
	Emotional SR	Cognitive SR	Academic skills
Child's gender	.331***	.349***	.230***
Family's Annual Household income	.054	-.048	.010
Mother's Educational level	.066	.031	.111
Family's SES level	.028	.000	.063

Note: Family's SES level was composited by calculating the mean of focal family's annual household income and mother's educational level.

* $p < .05$

*** $p < .001$

Relations between maternal psychological resources and autonomy-supportive parenting and child variables. Overall, maternal psychological resources were strongly associated with the extent of autonomy-supportive parenting behaviors among Korean mothers, although these significant correlations were of little explanatory value (Table 4.4). And, these two maternal psychological resources were correlated with each other ($r = .352, p < .001$).

Parenting self-efficacy was associated with the extent of the four specific autonomy-supportive related parenting behaviors. Higher parenting self-efficacy was associated with the extent of Korean mothers' responsive parenting behaviors ($r = .533, p < .001$). In contrast, Korean mothers' parenting self-efficacy was negatively associated with the extent of mothers' harsh parenting behaviors, permissive parenting behaviors, and inconsistent parenting behaviors ($r_s = -.251, -.186$, and $-.386$, respectively, $p_s < .001$).

The correlations between enjoyment of parenting and the extent of the four specific autonomy-supportive parenting behaviors were similar to the correlations between parenting self-efficacy and autonomy-supportive parenting. Higher enjoyment of parenting was associated with the extent of Korean mothers' responsive parenting behaviors ($r = .525, p < .001$). Conversely, Korean mothers' enjoyment of parenting was negatively associated with the extent of mothers' harsh parenting behaviors and inconsistent parenting behaviors ($r_s = -.328$, and $-.373$, respectively, $p < .001$).

However, the direct associations between the two maternal psychological resources (parenting self-efficacy and enjoyment of parenting) and child self-regulation development (emotional regulation skills and effortful cognitive regulation) were positive but non-significant.

Table 4.4

Bivariate (Zero-order) correlations between maternal psychological resources and autonomy-supportive parenting and child variables

Mothers' psychological resources	Autonomy-supportive related parenting				Child's variables		
	Harsh	Permissive	Inconsistent	Responsive	Emotional SR	Cognitive SR	Academic skills
PSE	-.251***	-.186**	-.386***	.533***	.093	.103	.085
Enjoyment of parenting	-.328***	-.015	-.373***	.525***	.024	.035	.134*

* $p < .05$, ** $p < .01$, *** $p < .001$

Relations between autonomy-supportive parenting and child variables. The four specific autonomy-supportive parenting behaviors (harshness, permissiveness, inconsistency, and responsiveness) were predicted to be associated with the children's self-regulation development (emotional regulation skills and effortful cognitive regulation).

However, *unexpectedly*, only Korean mothers' harsh parenting behavior was negatively associated with both the child's emotional regulation skills and effortful cognitive regulation skills ($r_s = -.131$ and $-.144$, respectively, $p < .05$) (Table 4.5).

No significant direct relations between the extent of maternal autonomy-supportive parenting behaviors and child academic skills were found.

Table 4.5

Bivariate (Zero-order) correlations between autonomy-supportive parenting and child variables

Autonomy-supportive related parenting	Emotional SR	Cognitive SR	Academic skills
Harsh	-.131*	-.144*	-.114
Permissive	-.052	-.055	.020
Inconsistent	.051	.051	-.043
Responsive	.041	.097	.116

* $p < .05$

Relations among the four specific autonomy-supportive parenting behaviors.

Three significant associations were observed among the four specific autonomy-supportive parenting behaviors (Table 4.6). First, inconsistency in Korean mothers' parenting was positively associated with harshness and permissiveness in their parenting ($r_s = .378$ and $.331$, respectively, $ps < .001$). Responsiveness in Korean mothers' parenting was negatively associated with harshness and inconsistency in their parenting ($r_s = -.221$ and $-.332$, respectively, $ps < .01$).

Table 4.6

Bivariate (Zero-order) correlations among the four specific autonomy-supportive parenting behaviors

Autonomy-supportive related parenting	Harsh	Permissive	Inconsistent	Responsive
Harsh	--			
Permissive	.019	--		
Inconsistent	.378***	.331***	--	
Responsive	-.211**	-.112	-.332***	--

** $p < .01$

*** $p < .001$

SEM Analysis of the Hypothesized Models

To test the hypothesized models (Figure 1.1), the maximum likelihood estimation in AMOS 21.0 for Windows (Arbuckle, 2012) was used. The model consisted of four observed variables (the four autonomy-supportive related parenting behaviors: harshness, permissiveness, inconsistency, and responsiveness) and four latent variables (parenting self-efficacy, enjoyment of parenting, child's self-regulation, and academic skill).

The latent variables were estimated with three or four manifest indicators. The latent construct parenting self-efficacy was estimated from the four subscales meant to measure anger management: closeness communication, academic skills and school prep, and good mother. The latent construct academic skills were estimated from the scores of the three subjects meant to measure child's academic skills/performance (addition-subtraction, reading/writing, and story composition/expression).

For the remaining latent variables, for which each underlying construct is conceptually unidimensional, that is, all the corresponding items load on one factor (enjoyment of parenting; and child's self-regulation), item parcels served as indicators. Little, Cunningham, Shahar, & Widaman (2002) defined a parcel as "aggregate-level indicator comprised of the sum (or average) of two or more items, responses, or behaviors (Little et al., 2002, p. 152). There have been lively debates over the pros and cons of using a parcel approach (Bandalos & Finney, 2001; Kishton & Widaman, 1994; Little et al, 2002). However, once the underlying constructs of the latent variables are considered unidimensional, a parcel approach has merits, compared to the estimation based on the individual item-level, in that it contributes to create a more parsimonious model, decreases the chances that residuals are correlated or double-loadings occur, and reduces the sources associated with sampling error, by decreasing the number of parameters in the structural equation model (Bandalos, 2002; Little et al., 2002). As recommended by Little et al. (2002), three item parcels were constructed by applying the item-to-construct balance approach. First, "three items with the highest loadings to anchor the three parcels; then the three items with the next highest item-to-construct loadings would be added to the anchors in an inverted order" (Little et al., 2002).

Based on the result of zero-order correlation analysis, child's gender was controlled for in this model.

The error variances of the two manifest variables of the parenting self-efficacy construct were allowed to be correlated with each other. The disturbances of the four autonomy supportive related parenting variables were also allowed to be correlated with each other. These contribute to achieve an adequate overall model fit.

Two indices for evaluating the fit of the hypothesized models were used: the root mean square error of approximation (RMSEA) and the comparative fit index (CFI). Based on the guidelines suggested by Hu and Bentler (1999), the following criteria were used to determine adequacy of the fit: CFI > .95 and RMSEA < .06.

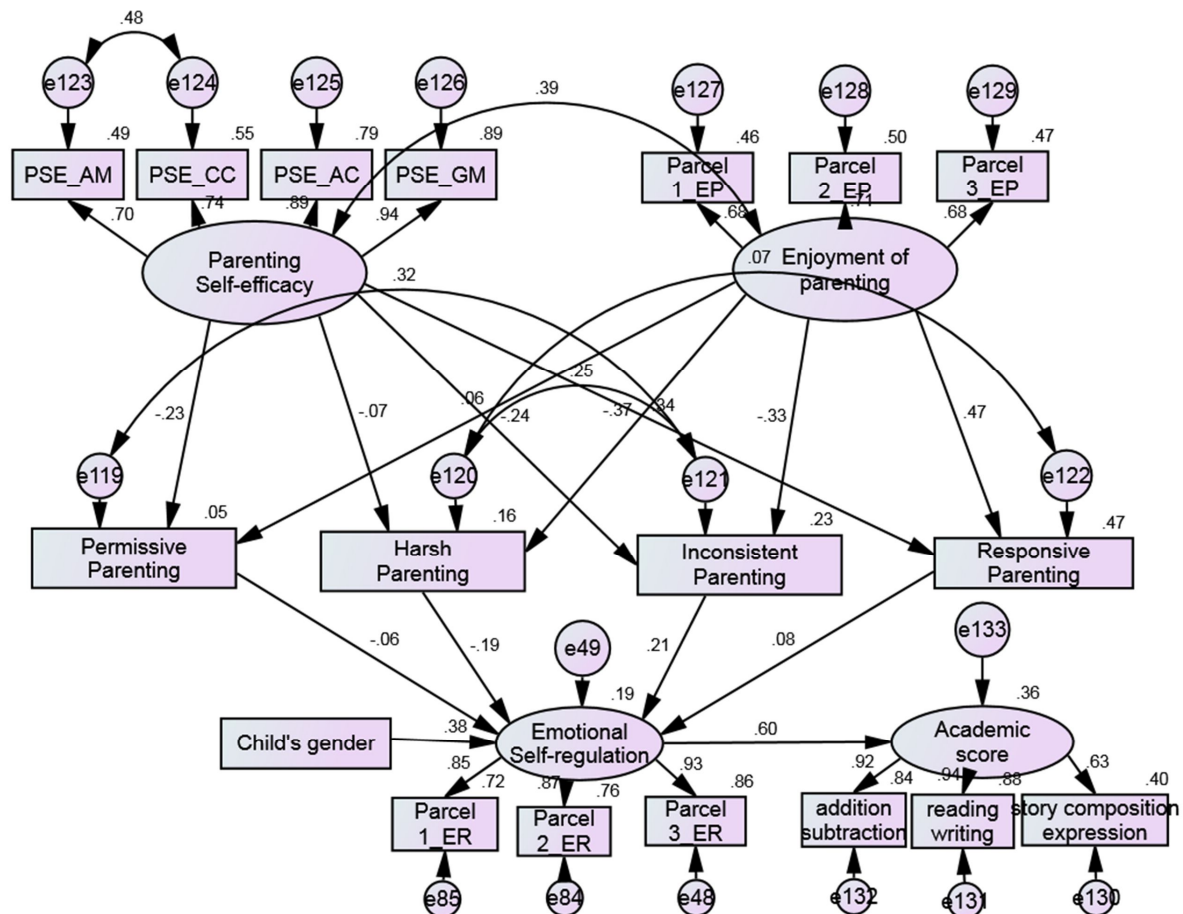


Figure 4.1. Final model for emotional self-regulation skills development

The model testing the (meditational) *paths* from the mother's two psychological resources to the child's academic skills through the four specific autonomy-supportive related parenting behaviors and the child's emotional regulation skills (Figure 4.1) fit the data *satisfactorily*, chi-square ($n=234$, $df=121$) = 236.138; $p=.000$, CFI=.948, and RMSEA=.064(, which are close to the cutoff criteria for a relatively good fit).

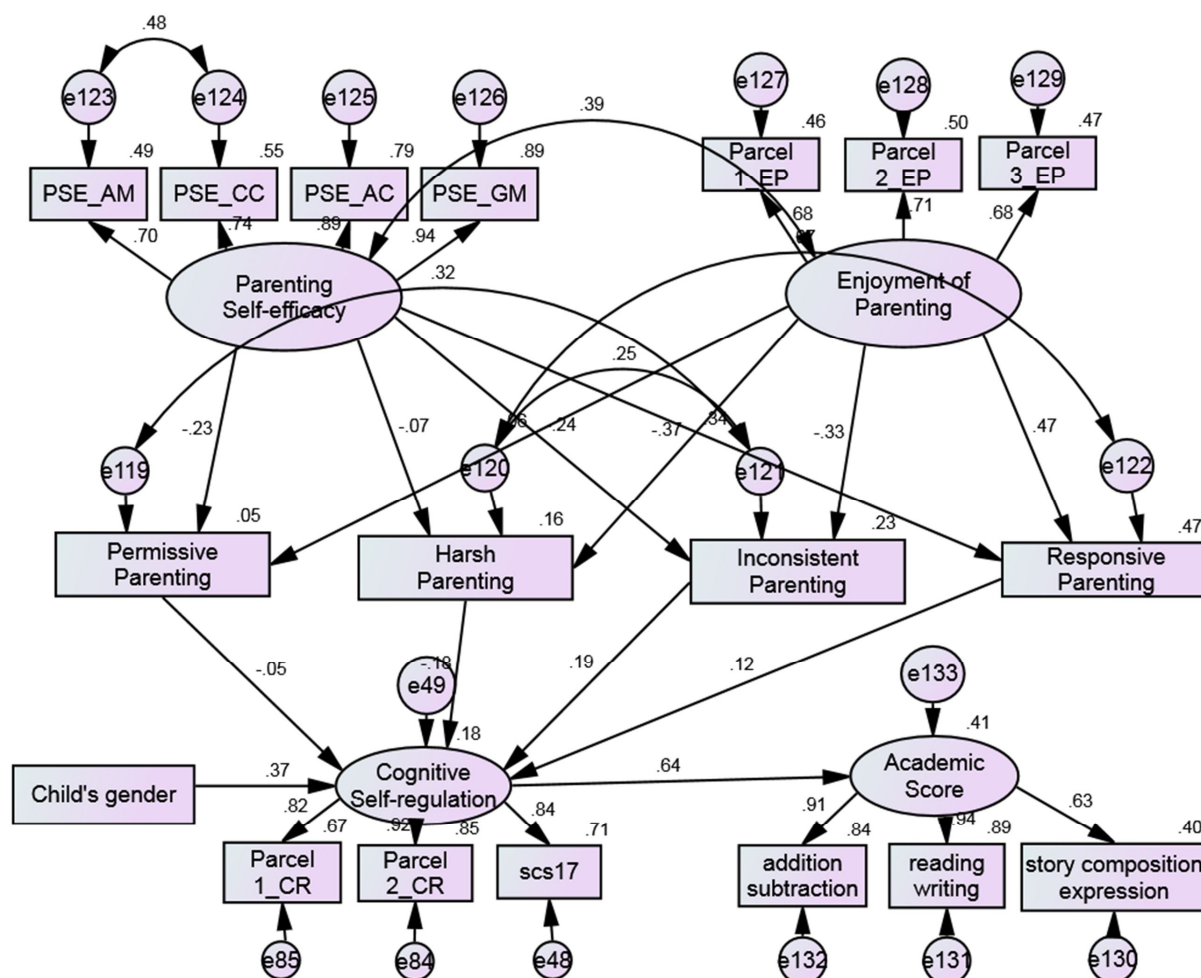


Figure 4.2. Final model for effortful cognitive self-regulation skills development

The model testing the (meditational) *paths* from the mother's two psychological resources to the child's academic skills through the four specific autonomy-supportive related parenting behaviors and the child's effortful cognitive regulation skills (Figure 4.2) fit the data *satisfactorily*, chi-square ($n=234$, $df=121$) = 226.392; $p=.000$, CFI=.951, and RMSEA=.061(, which are close to the cutoff criteria for a relatively good fit).

The specific hypothesis and its corresponding SEM analysis result. Hypothesis 1-1 through **1-4** concern the role of PSE as a predictor of parenting and also focused on the mediating role of emotional regulation mediating the relationship of parenting to academic skills. Each of these hypotheses in turn targeted one of the four parenting constructs.

Hypothesis 1-1 predicted a negative association between PSE and the extent of a Korean mother's permissive parenting, and that permissive parenting would mediate the relationship between PSE and a child's low emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between permissive parenting behaviors and the child's academic skills (Figure 2). I found partial support for this hypothesis. Korean mothers who believed in their abilities to parent successfully were less permissive than those who expressed low PSE, $\beta = -.230$, $p < .01$ ($p = .003$). However, contrary

to this hypothesis, mothers' permissive parenting was not related to children's low emotional regulation skills in a statistically significant way. Children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604$, $p < .001$.

I used the bias-corrected percentile bootstrap test to estimate the indirect effects (Hayes, 2009). Regarding the indirect effects of PSE on the child's emotional self-regulation development through permissive parenting behaviors, the bias-corrected percentile bootstrap test with AMOS 21.0 provided only the total indirect effects (i.e., the total amount for the indirect effects of the four specific hypothesized indirect effects of PSE on the child's emotional self-regulation through the four autonomy supportive parenting behaviors), instead of the specific indirect effects on the child's emotional regulation skills through permissive parenting behaviors. The total indirect effects of PSE on the child's emotional self-regulation development through these parenting behaviors was not significant ($\beta = .003$, $p = .803$). Further, inconsistent with the hypothesis, the indirect effects of permissive parenting behaviors on teacher-rated academic skills through emotional self-regulation development were not significant ($\beta = -.035$, $p = .388$).

Hypothesis 1-2 predicted a negative association between PSE and a Korean mother's harsh parenting behaviors, and that harshness in parenting would mediate the relationship between PSE and a child's low emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between the mother's harshness and the child's academic skills (Figure 2). I found partial support for this hypothesis. Korean mothers' PSE was not statistically significantly related to the extent of mother's harshness. However, consistent with the hypothesis, mothers' harsh parenting led to children's low emotional regulation skills, $\beta = -.195$, $p < .01$ ($p = .004$). And children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604$, $p < .001$.

I employed the bias-corrected percentile bootstrap test to estimate the total indirect effects of PSE on the child's emotional self-regulation development through the four parenting behaviors, and they were not significant ($\beta = .003$, $p = .803$). However, consistent with this hypothesis, harsh parenting behaviors had significant indirect effects through the child's emotional self-regulation development on teacher-rated academic skills, $\beta = -.118$, $p = .007$.

Hypothesis 1-3 predicted a negative association between PSE and a Korean mother's inconsistent parenting behaviors, and that inconsistency in parenting would mediate the relationship between PSE and a child's low emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between inconsistent parenting behaviors and the child's academic skills (Figure 2). I found partial support for this hypothesis. Consistent with the hypothesis, Korean mothers who believed in their abilities to parent successfully were less inconsistent than those who expressed low PSE, $\beta = -.241$, $p < .001$. However, contrary to this hypothesis, mothers' inconsistent parenting led to children's high emotional regulation skills, $\beta = .207$, $p < .01$ ($p = .005$). Furthermore, children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604$, $p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of PSE on the child's emotional regulation skills through inconsistent parenting behaviors through the four parenting behaviors, and they were not significant ($\beta = .003$, $p = .803$). However, inconsistency in parenting behaviors had significant indirect effects through the child's emotional regulation skills on teacher-rated academic skills, $\beta = .125$, $p = .007$.

Hypothesis 1-4 predicted that PSE would be positively associated with the extent of a Korean mother's responsive parenting behaviors and that responsiveness in parenting would mediate the relationship between PSE and a child's high emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between responsive parenting behaviors and the child's academic skills (Figure 2). This hypothesis obtained partial support. Consistent with the hypothesis, Korean mothers' who believed in their abilities to parent successfully were more responsive than those who expressed low PSE, $\beta = .343, p < .001$. However, as expected, responsiveness in parenting was not statistically significantly related to high emotional regulation skills. Children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604, p < .001$.

I used the bias-corrected percentile bootstrap test to estimate the total indirect effects of PSE on the child's emotional regulation skills through responsive parenting behaviors, and they were not significant ($\beta = .003, p = .803$). Further, the indirect effects of responsive parenting behaviors on teacher-rated academic skills through emotional self-regulation development were not significant ($\beta = .048, p = .385$).

Hypothesis 1-5 through 1-8 concern the role of enjoyment of parenting as a predictor of parenting and also focused on the mediating role of emotional regulation mediating the relationship of parenting to academic skills. Each of these hypotheses in turn targeted one of the four parenting constructs.

Hypothesis 1-5 predicted that enjoyment of parenting would be negatively associated with the extent of a Korean mother's permissive parenting behaviors and that permissiveness in parenting would mediate the relationship between enjoyment of parenting and a child's low emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between permissive parenting behaviors and the child's academic skills (Figure 2). I found partial support for this hypothesis. Enjoyment of parenting was not statistically significantly related to the extent of mothers' permissive parenting behaviors. Furthermore, permissiveness in parenting was not statistically significantly related to low emotional regulation skills. However, children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604, p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of enjoyment of parenting on the child's emotional regulation skills through permissive parenting behaviors, and they were not significant ($\beta = .038, p = .534$). Further, the indirect effects of permissive parenting behaviors on teacher-rated academic skills through emotional self-regulation development were not significant ($\beta = -.035, p = .388$).

Hypotheses 1-6 predicted that harsh parenting behaviors would indicate low enjoyment of parenting and that the level of harshness would determine the effect of a mother's enjoyment of parenting on her child's emotional regulation skills. The hypothesis further predicted that the child's emotional self-regulation development would indicate the effect of harsh parenting on the child's academic skills development (see Figure 2). I obtained partial support for this hypothesis. Mothers who enjoyed parenting were less harsh than those who expressed less enjoyment, $\beta = -.369, p < .001$. Moreover, mothers' harsh parenting led to children's low emotional regulation skills, $\beta = -.195, p < .01$ ($p = .004$), and the greater children's emotional regulation skills were, the higher children's teacher-rated academic skills were, $\beta = .604, p < .001$.

I used the bias-corrected percentile bootstrap test to estimate the total indirect effects of enjoyment of parenting on the child's emotional self-regulation through harsh parenting

behaviors, and they were not significant ($\beta = .038, p = .534$). However, consistent with the hypothesis, harsh parenting behaviors had significant indirect effects through the child's emotional self-regulation development on teacher-rated academic skills, $\beta = -.118, p = .007$.

Hypothesis 1-7 predicted that enjoyment of parenting would be negatively associated with the extent of a Korean mother's inconsistent parenting behaviors and that inconsistency in parenting would mediate the relationship between enjoyment of parenting and a child's low emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between inconsistent parenting behaviors and the child's academic skills (Figure 2). This hypothesis obtained partial support. Consistent with the hypothesis, mothers who enjoyed parenting were less inconsistent than those who expressed less enjoyment, $\beta = -.329, p < .001$. However, in contrast to this hypothesis, mothers' inconsistent parenting led to children's high emotional regulation skills, $\beta = .207, p < .01$ ($p = .005$). Moreover, the greater children's emotional regulation skills were, the higher children's teacher-rated academic skills were, $\beta = .604, p < .001$.

I employed the bias-corrected percentile bootstrap test to estimate the total indirect effects of enjoyment of parenting on the child's emotional self-regulation development through inconsistent parenting behaviors, and they were not significant ($\beta = .038, p = .534$). However, inconsistency in parenting behaviors had significant indirect effects through the child's emotional self-regulation development on teacher-rated academic skills, $\beta = .125, p = .007$.

Hypothesis 1-8 predicted that enjoyment of parenting would be positively associated with the extent of a Korean mother's responsive parenting behaviors and that responsiveness in parenting would mediate the relationship between enjoyment of parenting and a child's high emotional regulation skills. Further, it predicted that the child's emotional self-regulation development would mediate the relationship between responsiveness in parenting behaviors and the child's academic skills (Figure 2). I found partial support for this hypothesis. Consistent with the hypothesis, mothers who enjoyed parenting were more responsive than those who expressed less enjoyment, $\beta = .475, p < .001$. However, as expected, responsiveness in parenting was not statistically significantly related to high emotional regulation skills. Children's emotional self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .604, p < .001$.

Using bias-corrected percentile bootstrap test, I estimated the total indirect effects of enjoyment of parenting on the child's emotional regulation skills through responsive parenting behaviors, and they were not significant ($\beta = .038, p = .534$). Further, the indirect effects of responsive parenting behaviors on teacher-rated academic skills through emotional self-regulation development were not significant ($\beta = .048, p = .385$).

Hypothesis 1-9 through 1-12 concern the role of PSE as a predictor of parenting and also focused on the mediating role of effortful cognitive regulation mediating the relationship of parenting to academic skills. Each of these hypotheses in turn targeted one of the four parenting constructs.

Hypothesis 1-9 predicted that PSE would be negatively associated with the extent of a Korean mother's permissive parenting behaviors and that permissiveness in parenting would mediate the relationship between PSE and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's cognitive self-regulation development would mediate the relationship between permissive parenting behaviors and the child's academic skills (Figure 3). This hypothesis obtained partial support. Consistent with the hypothesis, Korean mothers who believed in their abilities to parent successfully were less permissive than those who expressed

low PSE, $\beta = -.230, p < .01$ ($p = .003$). However, contrary to this hypothesis, mothers' permissive parenting did not statistically significantly contribute to reduce children's (effortful) cognitive regulation skills. Further, children's cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

I used the bias-corrected percentile bootstrap test to estimate the total indirect effects of PSE on the child's cognitive regulation skills through permissive parenting behaviors, and they were not significant ($\beta = .018, p = .588$). Further, inconsistent with the hypothesis, the indirect effects of permissive parenting behaviors on teacher-rated academic skills through cognitive self-regulation development were not significant ($\beta = -.031, p = .550$).

Hypothesis 1-10 predicted that PSE would be negatively associated with the extent of Korean mothers' harsh parenting behaviors and that harshness in parenting would mediate the relationship between PSE and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's cognitive self-regulation development would mediate the relationship between harsh parenting behaviors and the child's academic skills (Figure 3). This hypothesis obtained partial support. PSE was not statistically significantly related to the extent of the mothers' harsh parenting behaviors. However, consistent with the hypothesis, mothers' harsh parenting led to children's low (effortful) cognitive regulation skills, $\beta = -.178, p < .05$ ($p = .010$). Moreover, children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .664, p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of PSE on the child's cognitive regulation skills through harsh parenting behaviors, and they were not significant ($\beta = .018, p = .588$). However, consistent with the hypothesis, harsh parenting behaviors had significant indirect effects through the child's cognitive regulation skills on teacher-rated academic skills, $\beta = -.114, p = .009$.

Hypothesis 1-11 predicted that PSE would be negatively associated with the extent of a Korean mother's inconsistent parenting behaviors and that inconsistency in parenting would mediate the relationship between PSE and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's cognitive self-regulation development would mediate the relationship between inconsistent parenting behaviors and the child's academic skills (Figure 3). I found partial support for this hypothesis. Consistent with the hypothesis, Korean mothers who believed in their abilities to parent successfully were less inconsistent than those who expressed low PSE, $\beta = -.241, p < .001$. However, in contrast to this hypothesis, mothers' inconsistent parenting contributed to children's high cognitive regulation skills, $\beta = .189, p < .05$ ($p = .012$). Further, children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

I employed the bias-corrected percentile bootstrap test to estimate the total indirect effects of PSE on the child's (effortful) cognitive regulation skills through inconsistent parenting behaviors, and they were not significant ($\beta = .018, p = .588$). However, inconsistency in parenting behaviors had a significant indirect effects through the child's (effortful) cognitive regulation skills development on teacher-rated academic skills, $\beta = .122, p = .006$.

Hypothesis 1-12 predicted that PSE would be negatively associated with the extent of a Korean mother's responsive parenting behaviors and that responsiveness in parenting would mediate the relationship between PSE and a child's high (effortful) cognitive regulation skills. Further, it predicted that the child's (effortful) cognitive self-regulation development would mediate the relationship between responsive parenting behaviors and the child's academic skills (Figure 3). I found partial support for this hypothesis. Consistent with the hypothesis, Korean

mothers who believed in their abilities to parent successfully than those who expressed low PSE, $\beta = .343, p < .001$. However, as expected, responsiveness in parenting was not statistically significantly related to high (effortful) cognitive regulation skills. Children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

I utilized the bias-corrected percentile bootstrap test to estimate the total indirect effects of PSE on the child's (effortful) cognitive regulation skills through responsive parenting behaviors, and they were not significant ($\beta = .018, p = .588$). Further, the indirect effects of responsive parenting behaviors on teacher-rated academic skills through (effortful) cognitive self-regulation development were not significant ($\beta = .076, p = .140$).

Hypothesis 1-13 through **1-16** concern the role of enjoyment of parenting as a predictor of parenting and also focused on the mediating role of effortful cognitive regulation mediating the relationship of parenting to academic skills. Each of these hypotheses in turn targeted one of the four parenting constructs.

Hypothesis 1-13 predicted that enjoyment of parenting would be negatively associated with the extent of a Korean mother's permissive parenting behaviors and that permissiveness in parenting would mediate the relationship between the enjoyment of parenting and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's (effortful) cognitive self-regulation development would mediate the relationship between permissive parenting behaviors and the child's academic skills (Figure 3). This hypothesis obtained partial support. Korean mothers' enjoyment of parenting was not statistically significantly related to the extent of the mother's permissive parenting behaviors. Furthermore, permissiveness in parenting was not statistically significantly related to low (effortful) cognitive regulation skills. However, children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of enjoyment of parenting on the child's (effortful) cognitive regulation skills through permissive parenting behaviors, and they were not significant ($\beta = .018, p = .588$). Further, the indirect effects of permissive parenting behaviors on teacher-rated academic skills through (effortful) cognitive self-regulation development were not significant ($\beta = -.031, p = .550$).

Hypothesis 1-14 predicted that enjoyment of parenting would be negatively associated with the extent of a Korean mother's harsh parenting behaviors and that harshness in parenting would mediate the relationship between the enjoyment of parenting and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's (effortful) cognitive self-regulation development would mediate the relationship between harshness in parenting behaviors and the child's academic skills (Figure 3). This hypothesis received partial support. Consistent with the hypothesis, Korean mothers who enjoyed parenting were less harsh than those who expressed less enjoyment, $\beta = -.369, p < .001$. Moreover, mothers' harsh parenting led to children's low (effortful) cognitive regulation skills, $\beta = -.178, p < .05$ ($p = .010$). Children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of enjoyment of parenting on the child's (effortful) cognitive regulation skills through harsh parenting behaviors, and they were not significant ($\beta = .018, p = .588$). However, consistent with the hypothesis, harsh parenting behaviors had significant indirect effects through the child's (effortful) cognitive self-regulation development on teacher-rated academic skills, $\beta = -.114, p$

= .009.

Hypothesis 1-15 predicted that enjoyment of parenting would be negatively associated with the extent of a Korean mother's inconsistent parenting behaviors and that inconsistency in parenting would mediate the relationship between the enjoyment of parenting and a child's low (effortful) cognitive regulation skills. Further, it predicted that the child's (effortful) cognitive self-regulation development would mediate the relationship between inconsistent parenting behaviors and the child's academic skills (Figure 3). I found partial support for this hypothesis. Consistent with the hypothesis, Korean mothers who enjoyed parenting were less inconsistent than those who expressed less enjoyment, $\beta = -.329, p < .001$. However, contrary to this hypothesis, mothers' inconsistent parenting contributed to their children's high cognitive regulation skills, $\beta = .189, p < .05$ ($p = .012$). Further, children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

I employed the bias-corrected percentile bootstrap test to estimate the total indirect effects of enjoyment of parenting on the child's (effortful) cognitive regulation skills through inconsistent parenting behaviors, and they were not significant ($\beta = .018, p = .588$). However, inconsistent parenting behaviors had significant indirect effects through the child's (effortful) cognitive self-regulation development on teacher-rated academic skills, $\beta = .122, p = .006$.

Hypothesis 1-16 predicted that enjoyment of parenting would be positively associated with the extent of a Korean mother's responsive parenting behaviors and that responsiveness in parenting would mediate the relationship between the enjoyment of parenting and a child's high (effortful) cognitive regulation skills. Further, it predicted that the child's (effortful) cognitive self-regulation development would mediate the relationship between responsive parenting behaviors and the child's academic skills (Figure 3). This hypothesis obtained partial support. Consistent with the hypothesis, Korean mothers' enjoyment of parenting was significantly positively related to the extent of the mother's responsive parenting behaviors, $\beta = .475, p < .001$. However, as expected, responsiveness in parenting was not statistically significantly related to high (effortful) cognitive regulation skills. Children's (effortful) cognitive self-regulation development was positively associated with high teacher-rated academic skills, $\beta = .644, p < .001$.

Using the bias-corrected percentile bootstrap test, I estimated the total indirect effects of enjoyment of parenting on the child's (effortful) cognitive regulation skills through responsive parenting behaviors, and they were not significant ($\beta = .018, p = .588$). Further, the indirect effects of responsive parenting behaviors on teacher-rated academic skills through (effortful) cognitive self-regulation development were not significant ($\beta = .076, p = .140$).

Summary of the tests for the hypothesized direct paths. First, in terms of the paths from a Korean mother's psychological resources to her autonomy supportive parenting behaviors, PSE negatively predicted the extent of the mother's permissive and inconsistent parenting behaviors. Enjoyment of parenting negatively predicted the extent of the mother's inconsistent and harsh parenting behaviors. PSE and enjoyment of parenting positively predicted the extent of the mother's responsive parenting behaviors.

Second, in terms of the paths from the mother's autonomy supportive parenting behaviors to the child's self-regulation development, harshness negatively predicted the child's emotional and cognitive self-regulation development. However, inconsistency positively predicted the child's emotional and cognitive self-regulation development. Permissiveness and

responsiveness did not statistically significantly predict the child's emotional and cognitive self-regulation development.

Third, in terms of the paths from self-regulation development to academic performance, a child's emotional and cognitive self-regulation development positively predicted teacher-rated academic skills.

Summary of the tests for the hypothesized indirect paths. The tests for the hypothesized indirect paths (bias-corrected percentile bootstrap test) showed that the indirect effects of inconsistent and harsh parenting behaviors on a child's teacher-rated academic skills through the child's emotional regulation skills were significant. Furthermore, the indirect effects of inconsistent and harsh parenting behaviors on a child's teacher-rated academic skills through the child's cognitive regulation skills were significant.

And the total indirect effects of the mothers' two psychological resources—PSE and enjoyment of parenting—on children's emotional and cognitive self-regulation skills through the four specific autonomy supportive parenting behaviors were not significant. However, the study faced analytical limitations in investigating how each proposed psychological resource indirectly affects children's self-regulation development, through each specific related parenting behavior. The study only examined the total indirect effects of the four hypothesized indirect effects, instead of probing these indirect effects. Accordingly, this mediational relationship necessitates further exploration with a suitable SEM analysis tool, such as Mplus.

The maximum likelihood estimates for the hypothesized (direct & indirect) paths of the structural models are depicted in Table 4.7 & 4.8.

Table 4.7. Maximum likelihood estimates for the hypothesized paths (Direct & Indirect) of the structural model (Emotional self-regulation model)

<i>Direct path</i>	<i>B</i>	<i>S.E.</i>	<i>β</i>	<i>C.R.</i>	<i>p</i>
<i>Mother's psychological resource</i>					
<i>to Autonomy supportive related parenting behaviors</i>					
PSE to harshness	-.071	.079	-.065	-.899	.368
PSE to permissiveness	-.239	.080	-.230	-3.003	.003
PSE to inconsistency	-.236	.070	-.241	-3.386	<.001
PSE to responsiveness	.325	.061	.343	5.287	<.001
Enjoyment of parenting to harshness	-.551	.129	-.369	-4.282	<.001
Enjoyment of parenting to permissiveness	.088	.117	.062	.754	.451
Enjoyment of parenting to inconsistency	-.441	.108	-.329	-4.093	<.001
Enjoyment of parenting to responsiveness	.615	.100	.475	6.150	<.001
<i>Autonomy supportive related parenting behaviors to child's self-regulation</i>					
Harshness to emotional self-regulation	-.228	.079	-.195	-2.881	.004
Permissiveness to emotional self-regulation	-.071	.081	-.058	-.874	.382
Inconsistency to emotional self-regulation	.270	.096	.207	2.801	.005
Responsiveness to emotional self-	.107	.089	.079	1.204	.228

regulation					
<i>Child's self-regulation to academic score</i>					
Emotional self-regulation to academic score	.461	.060	.604	7.735	<.001
<hr/>					
<i>Indirect path</i>					
(The bias-corrected percentile bootstrap test)	B	S.E.	β	95% CI	<i>p</i>
<hr/>					
<i>Mother's psychological resource to child's self-regulation through autonomy supportive related parenting behaviors</i>					
PSE on emotional self-regulation through the four specific autonomy supportive related parenting behaviors (total indirect effects)	.004	.040	.003	(-.064, .059)	.842
Enjoyment of parenting to emotional self-regulation through the four specific autonomy supportive related parenting behaviors (total indirect effects)	.066	.077	.038	(-.069, .108)	.534
<i>Autonomy supportive related parenting behaviors to academic score through child's self-regulation</i>					
Harshness to academic score through emotional self-regulation	-.105	.038	-.118	(-.215, -.036)	.007
Permissiveness to academic score through emotional self-regulation	-.033	.039	-.035	(-.113, .062)	.388
Inconsistency to academic score through emotional self-regulation	.124	.045	.125	(.036, .226)	.007
Responsiveness to academic score through emotional self-regulation	.049	.046	.048	(-.057, .123)	.385

Table 4.8. Maximum likelihood estimates for the hypothesized paths (Direct & Indirect) of the structural model (Cognitive self-regulation model)

<i>Direct Path</i>	B	S.E.	β	C.R.	<i>p</i>
<hr/>					
<i>Mother's psychological resource to autonomy supportive related parenting behaviors</i>					
PSE to harshness	-.071	.079	-.065	-.899	.368
PSE to permissiveness	-.239	.080	-.230	-3.003	.003
PSE to inconsistency	-.236	.070	-.241	-3.386	<.001
PSE to responsiveness	.325	.061	.343	5.287	<.001
Enjoyment of parenting to harshness	-.551	.129	-.369	-4.282	<.001
Enjoyment of parenting to permissiveness	.088	.117	.062	.754	.451
Enjoyment of parenting to inconsistency	-.441	.108	-.329	-4.093	<.001
Enjoyment of parenting to responsiveness	.615	.100	.475	6.150	<.001
<i>Autonomy supportive related parenting</i>					

behaviors to child's self-regulation

Harshness to cognitive self-regulation	-.199	.077	-.178	-2.585	.010
Permissiveness to cognitive self-regulation	-.056	.078	-.048	-.720	.471
Inconsistency to cognitive self-regulation	.236	.094	.189	2.518	.012
Responsiveness to cognitive self-regulation	.152	.086	.118	1.768	.077
Child's self-regulation to academic score					
Cognitive self-regulation to academic score	.515	.066	.644	7.858	<.001

<i>Indirect Path</i> (The bias-corrected percentile bootstrap test)					
	B	S.E.	β	95% CI	<i>p</i>
Mother's psychological resource to child's self-regulation through autonomy supportive related parenting behaviors					
PSE on cognitive self-regulation through the four specific autonomy supportive related parenting behaviors (total indirect effects)	.022	.038	.018	(-.049, .070)	.588
Enjoyment of parenting to cognitive self-regulation through the four specific autonomy supportive related parenting behaviors (total indirect effects)	.094	.075	.056	(-.043, .130)	.267
Autonomy supportive related parenting behaviors to academic score through child's self-regulation					
Harshness to academic score through cognitive self-regulation	-.103	.040	-.114	(-.216, -.036)	.009
Permissiveness to academic score through cognitive self-regulation	-.029	.041	-.031	(-.099, .083)	.550
Inconsistency to academic score through cognitive self-regulation	.122	.047	.122	(.029, .225)	.006
Responsiveness to academic score through cognitive self-regulation	.078	.050	.076	(-.041, .147)	.140

Tests of Moderation by Child's Gender and Mother's Level of Education—Examining Within-Group Variations

Hypothesis 2-1-A predicted that the child's gender would moderate the mediated relationships between a Korean mother's psychological resources (PSE and enjoyment of parenting), the four specific autonomy supportive parenting behaviors, the child's emotional regulation skills, and the child's academic skills. To test for moderation by the child's gender, I divided the sample into the mothers of boys ($n = 116$) and the mothers of girls ($n = 118$). I considered a fully constrained model first, with the corresponding paths for the mothers of boys

and the mothers of girls individually constrained to be equal, as recommended when testing moderation using SEM (Holmbeck, 1997). I compared this fully constrained multi-group model with the full mediation (multi-group) model (the models for the mothers of boys and the mothers of girls with the constraints freed). The equality constraints resulted in a significant deterioration in model fit, $\Delta CFI = .004$, $\Delta\chi^2(13, N = 234) = 22.696$, $p = .045$, indicating that the structural paths of the models for the mothers of boys and the mothers of girls were different. Therefore, the child's gender moderated the model pathways.

Looking at the regression weight of each path, the child's gender may have moderated the paths from enjoyment of parenting to permissive parenting behaviors, $\Delta\chi^2(1) = 10.904$, $p = .001$. Specifically, the paths from enjoyment of parenting to permissive parenting behaviors of the mothers of boys and the mothers of girls had different directions. For the mothers of boys, enjoyment of parenting positively predicted permissive parenting behaviors ($\beta = .362$, $p = .007$), whereas for the mothers of girls, enjoyment of parenting negatively predicted permissive parenting behaviors ($\beta = -.200$, $p = .066$, ns).

The child's gender may also have marginally moderated the path from permissive parenting behaviors to the child's emotional regulation skills, $\Delta\chi^2(1) = 3.811$, $p = .051$. The paths from permissive parenting behaviors to the child's emotional regulation skills of the mothers of boys and the mothers of girls had different directions. For the mothers of boys, permissive parenting behaviors positively predicted the child's emotional regulation skills, although this relationship was not statistically significant ($\beta = .083$, $p = .391$, ns), whereas for the mothers of girls, permissive parenting behaviors negatively predicted the child's emotional regulation skills ($\beta = -.204$, $p = .047$).

Hypothesis 2-1-B predicted that the child's gender would moderate the mediated relationships between a Korean mother's psychological resources (PSE and enjoyment of parenting), the four specific autonomy supportive parenting behaviors, the child's effortful cognitive regulation skills, and the child's academic skills.

Equality constraints did not result in a significant deterioration in model fit, indicating that the structural paths of the models for the mothers of boys and the mothers of girls were similar. The child's gender did not moderate the model pathways; rather, it only moderated the child's emotional self-regulation model pathways. However, looking at the regression weight of each path (similar to the model for emotional self-regulation development), the child's gender may have moderated the paths from enjoyment of parenting to permissive parenting behaviors, $\Delta\chi^2(1) = 10.904$, $p = .001$. Specifically, the paths from enjoyment of parenting to permissive parenting behaviors of the mothers of boys and the mothers of girls had different directions. For the mothers of boys, enjoyment of parenting positively predicted permissive parenting behaviors ($\beta = .362$, $p = .007$), whereas for the mothers of girls, enjoyment of parenting negatively predicted permissive parenting behaviors ($\beta = -.001$, $p = .066$, ns).

Hypothesis 2-2-A predicted that when controlling for the child's gender, the mother's level of education would moderate the mediated relationships between her psychological resources (PSE and enjoyment of parenting), the four specific autonomy supportive parenting behaviors, the child's emotional regulation skills, and the child's academic skills. To test for moderation by the mother's level of education, I divided the sample into the mothers who had completed high school or less ($n = 107$) and the mothers who completed some college or more ($n = 126$), and I controlled for the child's gender.

I considered a fully constrained model first, with the corresponding paths for mothers who had completed high school or less and the mothers who had completed some college or

more individually constrained to be equal, as recommended when testing moderation using SEM (Holmbeck, 1997). I compared this fully constrained multi-group model with the full mediation (multi-group) model (the models of the mothers who had completed high school or less and the mothers who had completed some college or more with the constraints freed). The equality constraints did not result in a significant deterioration in model fit, indicating that the structural paths of the models for the mothers who had completed high school or less and the mothers who had completed some college or more were similar. Hence, a mother's level of education did not moderate the model pathways.

However, interestingly, the mother's level of education marginally moderated the path from inconsistent parenting behaviors to the child's emotional regulation skills, $\Delta\chi^2(1) = 3.150$, $p = .076$. The path from inconsistent parenting behaviors to the child's emotional regulation skills was relatively stronger for the mothers who had completed high school or less ($\beta = .339$, $p < .001$) than for the mothers who had completed some college or more ($\beta = .100$, $p = .340$, ns).

Hypothesis 2-2-B predicted that when controlling for the child's gender, the mother's level of education would moderate the mediated relationships between her psychological resources (PSE and enjoyment of parenting), the four specific autonomy supportive parenting behaviors, the child's effortful cognitive regulation skills, and the child's academic skills.

Equality constraints did not result in a significant deterioration in model fit, indicating that the structural paths of the models for the mothers who had completed high school or less and the mothers who had completed some college or more were similar. Thus, a mother's level of education did not moderate the model pathways. However, (similar to the model for emotional self-regulation development) interestingly, the mother's level of education marginally moderated the path from inconsistent parenting behaviors to the child's effortful cognitive regulation skills, $\Delta\chi^2(1) = 2.839$, $p = .092$. The path from inconsistent parenting behaviors to the child's effortful cognitive regulation skills was relatively stronger for the mothers who had completed high school or less ($\beta = .325$, $p = .002$) than for the mothers who had completed some college or more ($\beta = .084$, $p = .427$, ns).

SEM Analysis of Alternative Models

Although the hypothesized models fit the data satisfactorily, it is possible that the interrelations among the latent constructs could also be described by different models. I tested a plausible *child-directed model*, in which the children's regulation was considered the exogenous factor predicting their academic skills, which, in turn, predicted the mothers' psychological resources (parenting self-efficacy and enjoyment of parenting). These two psychological resources were then used to predict the four specific autonomy-supportive related parenting behaviors. Child's gender was also controlled for in this model.

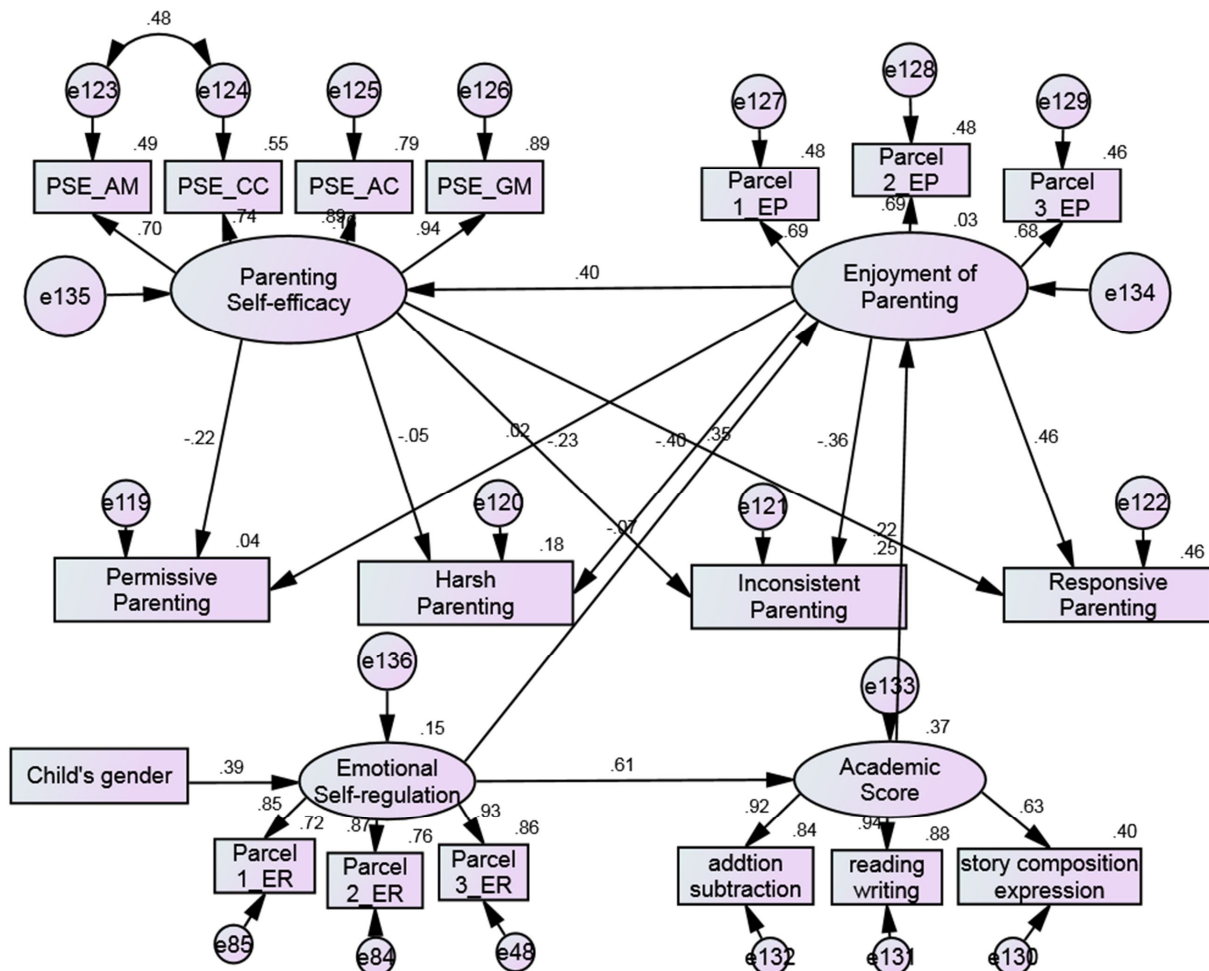


Figure 4.3. Alternative child-directed model for emotional self-regulation skills development

The model testing the *paths* from the child's emotional self-regulation skills development to the four specific autonomy-supportive related parenting behaviors through academic skills and two psychological resources (Figure 4.3) fits the data *satisfactorily*, chi-square ($n=234$, $df=126$) = 283.548; $p=.000$, CFI=.929, and RMSEA=.073.

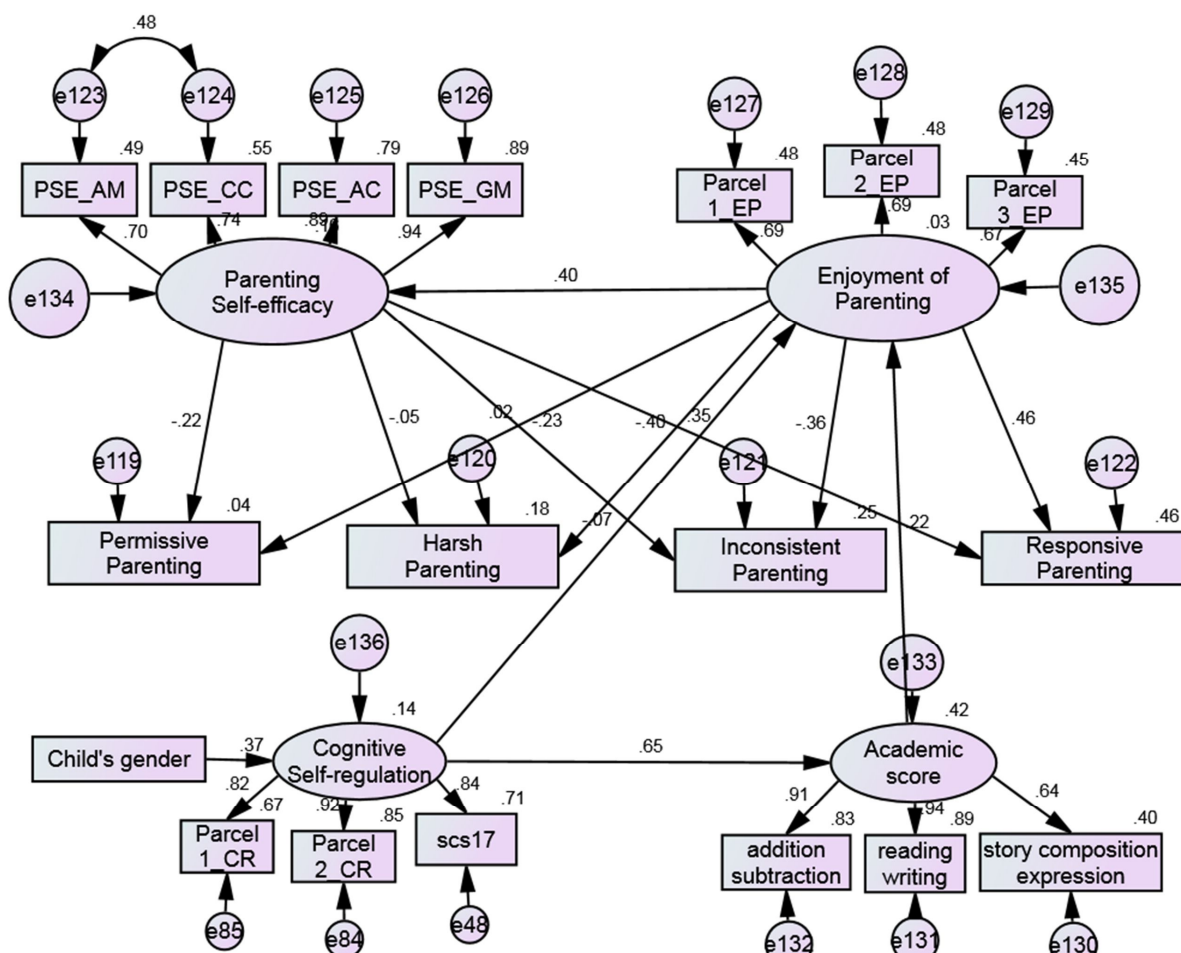


Figure 4.4. Alternative child-directed model for effortful cognitive self-regulation skills development

The model testing the *paths* from the child's effortful cognitive self-regulation skills development to the four specific autonomy-supportive related parenting behaviors through academic skills and two psychological resources (Figure 4.4) fits the data *satisfactorily*, chi-square ($n=234$, $df=126$) = 273.205; $p=.000$, CFI=.932, and RMSEA=.071.

In order to choose between this alternative model and the hypothesized model, the Akaike information criteria (AIC) were used. A chi-square difference test could not be used, because this alternative model was not nested within or hierarchical to the hypothesized model (Kline, 1998). The AIC of the two hypothesized models (emotional regulation model: 336.138; effortful cognitive regulation model: 326.392) were smaller than those of the child-directed alternative models (emotional regulation model: 373.548; effortful cognitive regulation model: 363.205). This finding indicates that *the hypothesized models (both emotional and cognitive regulation models) were better than the alternative models*.

Although the fit of the alternative child-directed model was quite satisfactory, and also produced a few interesting findings worth discussing, the model did not support favoring a child-directed over a mother-directed sequence in terms of causality.

CHAPTER FOUR

Discussion

The literature has shown the importance of self-regulation development during early childhood due to its association with positive outcomes for the child as well as its longitudinal effects. As an important predictor of self-regulation development, parenting has consistently drawn researchers' attention, as parenting is the most influential proximal context of development, particularly during early childhood. To gain a better understanding of parenting and its association with self-regulation development during early childhood, many studies have documented the nature of the parenting behaviors linked to enhancing children's self-regulation development. Although these studies have consistently identified the positive function of *authoritative* parenting style in relation to children's self-regulation development, there are three major gaps in our understanding of parenting and its association with children's self-regulation during early childhood: (a) relatively little is known about *how* those specific parenting behaviors support (young) children's self-regulation development; (b) few studies have examined the *antecedents* of the parenting behaviors that support children's self-regulation development; and (c) there have been inconsistent findings regarding the relationship between parenting behaviors and children's self-regulation development *across different cultural contexts*.

The objective of the present study was to fill these gaps. First, by using the four specific autonomy-supportive parenting behaviors proposed in the context of SDT, rather than general parenting styles/types, this study aimed to provide a better understanding of how parenting supports self-regulation development during early childhood. Furthermore, proposing a mother's psychological resources—specifically PSE and enjoyment of parenting—as the antecedents of the parenting behaviors that support children's self-regulation development oriented the present study toward examining how these antecedents function in the relationship with the specific autonomy supportive parenting behaviors and children's self-regulation. Finally, by exploring the association between the mothers' psychological resources, those specific parenting behaviors, and children's self-regulation and academic skills development within the particular cultural context of Korea, adopting a within-group design, the present study aimed to test the following: (a) whether differences exist in the functions of the four specific autonomy supportive parenting behaviors in their relationship with children's self-regulation development; (b) whether there is cultural uniqueness in the nature of the relationship between mothers' psychological resources, autonomy supportive parenting behaviors, and children's self-regulation and academic skills development; and (c) whether within-group variations exist in this dynamic relationship (between parents' psychological resources, parenting behaviors, and their young children's self-regulation and academic skills development) between Korean mothers and their children.

The following sections review the key findings, implications, and limitations of the study in light of these aims.

Key Findings

The specific functions of the four autonomy supportive parenting behaviors (harshness, permissiveness, inconsistency, and responsiveness) in the relationship with children's self-regulation and academic skills development within the Korean cultural context. Overall, the results indicate how each of the four autonomy supportive parenting behaviors—namely, harshness, permissiveness, inconsistency, and responsiveness—is linked to a

young child's self-regulation and academic skills development within the Korean cultural context.

Harsh parenting behaviors. Considering the relationship between contemporary Korean mothers' harsh parenting and their children's self-regulation development, the design of this study reflects the argument that researchers must consider the unique indigenous cultural and situational contexts in which Korean mothers and their children interact with each other. Regarding the influence of the indigenous cultural features on shaping the nature of this relationship, I expected the following: (a) controlling, even harsh parenting behaviors, would not necessarily negatively affect a child's outcomes, including self-regulation and academic skills development, because Korean mothers are likely to socialize their children to respect and obey elders, due to the influence of Confucianism; and (b) Korean children are likely to perceive their parents' controlling behaviors as expressions of concern, given their sense of indebtedness for their parents' sacrifice, and feel obliged to reward their parents (Kim et al., 2005; Kim & Park, 2006). Based on these two cultural features of the contemporary Korean cultural context, I hypothesized that harshness in parenting behaviors would promote (or somewhat positively predict) a child's emotional and cognitive self-regulation and academic skills development during early childhood.

Contrary to my expectations and hypotheses, I found a negative association between Korean mothers' harsh parenting behaviors and young children's emotional and cognitive self-regulation development at the zero-order level. In the full model and controlling for the child's gender, harshness in the mother's parenting negatively predicted the child's emotional and cognitive self-regulation development. Furthermore, while still controlling for gender, harsh parenting behaviors indirectly negatively affected the children's academic skills through their emotional and cognitive self-regulation development.

As noted above, Confucianism has deeply influenced the contemporary Korean cultural context. Korean parents have traditionally socialized their children to obey their elders, so it is often possible to characterize Korean mothers' parenting behaviors as relatively authoritarian or controlling. Of course, such a socialized formation of the parent-child relationship occurs more frequently in the contemporary Korean cultural context than its Western counterpart (Kim et al., 2011; Kim & Park, 2006; Kim et al., 2005). However, while harsh parenting may be observable more frequently in Korean than in many other cultures, Korean mothers' harsh parenting may not function positively in its relationship with the children's outcomes in terms of self-regulation and academic skill development; further, a child may not perceive it positively. Indeed, harsh parenting negatively affects children's self-regulation and academic skills development. This result contradicts the findings of parenting studies in the Chinese context. Since indigenous cultural concepts that are rooted in Confucianism, such as *Chiao-shun* or *guan*, are presupposed in the very core of the parents' controlling behaviors, their children perceive them as expressions of concern, and the discrepancies in their perceptions cause the controlling parenting behaviors to affect those children's outcomes positively in self-regulation development. These are the arguments that researchers such as Pomerantz and Wang (2010) have made.

However, it may be too hasty to conclude that the results of the present study reveal that the relationship between harsh parenting behaviors and children's self-regulation development has nothing to do with cultural orientation, and that this finding supports the widespread phenomenon of controlling parenting behaviors. On the contrary, it could be that this finding reflects the contemporary Korean cultural and situational contexts in a deeply sensitive way. The rapid changes in Korean society due to modernization and industrialization (Kim & Moon, 2006; Kim et al., 2011; Schwartz et al., 2002) have led Korean mothers and their children to adopt

many aspects of Western culture. Hence, despite the prevalence of harshness, Korean children may perceive their mothers' harsh parenting behaviors negatively, and such parenting behaviors may have a deleterious effect children's self-regulation development. Thus, there is a need for more thorough and qualitative research into how cultural aspects function in the dynamic relationship between harsh parenting behaviors and children's self-regulation development within the contemporary Korean cultural context.

Failing to provide firm structure: Inconsistent parenting behaviors. In the full SEM model, parental inconsistency positively predicted a child's emotional and cognitive self-regulation development, when controlling for gender. This is an intriguing result, despite the association between inconsistent parenting behaviors and a child's self-regulation (both emotional and cognitive) not being statistically significant at the correlation level. Mothers' inconsistent parenting behaviors indirectly and positively affected children's academic skills development through children's emotional and cognitive self-regulation development, when controlling for gender.

This finding counters SDT theorists' arguments that mothers' inconsistent parenting behaviors, characterized as failing to provide rules or a firm structure, are more likely to frustrate children's need for competency. Those researchers argue that this in turn detrimentally affects children's self-regulation development. This finding instead upholds the argument that there are differences in the perceived meanings of mothers' inconsistent parenting and the extent of its detrimental effects on children's self-regulation development, due to the unique Korean cultural context.

Two possible interpretations are on offer. First, the strong emphasis on education, one of the prevailing tendencies in contemporary Korean society, needs to be considered. This has caused mothers to be forceful in driving their children towards success in school (Jeon, 2007; Lee, 2006). In my professional experience, Korean mothers face substantial social pressure to ensure that their children achieve academic success. As a way of meeting this demand, they tend to push their preschool-aged children to adhere to a rigorous daily schedule that includes private cram schools and lessons. Considering this unique cultural phenomenon carefully, one could assume that children may feel liberated and flexible—even autonomous—when they perceive inconsistency in their mothers' parenting behaviors. This, in turn, may positively affect a child's autonomous self-regulation.

Alternatively, it is also possible that the features of a collectivistic cultural model may influence Korean children's perceptions of their parents' inconsistent parenting behaviors. People in so-called collectivistic cultural contexts, such as Japan or South Korea, place great value on social context, so changing and inconsistent behaviors, including parenting behaviors, may be considered appropriate. In addition, Korean children are expected to respect and obey their parents, and are likely to look at them with gratitude and indebtedness (Kim et al., 2005; Kim & Moon, 2006; Kim et al., 2011; Kim & Park, 2006). Thus, parents' inconsistency may not actually be perceived as especially harmful, as it is within individualistic cultural contexts. Furthermore, such inconsistency may not be detrimental to children's autonomous self-regulation to the extent that SDT theorists have argued (Grolnick, 2009, 2012; Grolnick & Ryan, 1989).

This finding constitutes empirical evidence, arguably for the first time, showing the necessity of considering the situational and cultural contexts in which parenting occurs to understand the function and perceived meaning of inconsistency, providing a firm structure in its relationship with children's self-regulation development.

Failing to provide firm structure: Permissive parenting behaviors. Contrary to

expectations, when controlling for gender, permissiveness in parenting behaviors was not statistically significantly negatively associated with children's emotional or cognitive self-regulation and academic skills development, either at the zero-order level or in the full SEM model.

What these non-significant effects suggest is that it would also be true that Korean children struggle with fulfilling their need for competency when their parents are permissive. This may in turn negatively affect their self-regulation development, as the SDT theorists have argued (Grolnick, 2009, 2012; Grolnick & Ryan, 1989). However, since tradition and culture influence Korean parents to be likely to force their children to obey them and their other elders, and as they forcefully drive their children to succeed in school (Kim & Park, 2006; Lee, 2006), a child's awareness of the permissiveness in his or her mother's parenting behaviors may contribute to alleviating any pressure. One could deduce from this that having the alleviation of the psychological pressure of one's parents may reduce the negative effects of the permissive parenting behaviors that arise from the failure to establish firm rules.

Paradoxically, the results regarding *inconsistent* and *permissive* parenting behaviors show that the two specific parenting behaviors that similarly capture the failure to provide a firm structure function quite differently in their relationship with children's self-regulation development. Furthermore, these findings suggest the need for further studies on the dimension or concept of *providing firm structure*, considering the situational and cultural context in which the parenting occurs.

Responsive parenting behaviors. Consistent with my expectation, although responsiveness in parenting was positively associated with children's self-regulation development, this association was not statistically significant at the zero-order level or in the full model. This result contradicted the SDT literature (Grolnick, 2009, 2012; Grolnick & Ryan, 1989) as well as parenting literature in general (Kochanska, 2001; Sroufe, 1983; Tronick 1989; Ziv et al., 2004).

As I expected, this non-significant association offers a promising indication that the strength of the link between responsive parenting and children's outcomes in self-regulation and academic skills may differ between the contemporary Korean cultural context and the contexts in which previous researchers conducted their SDT-based studies. This may be due to the unique cultural context in which many young Korean parents are under pressure to raise their children to be academic overachievers.. This pressure may have led Korean parents to tend to be excessively involved in their children's educational experience and even in their daily routines. As I discussed above, this is one of the most prominent cultural features in Korea. Within this cultural context, children may view their parents' responsive parenting or involvement in their daily lives as a form of control rather than as a situation where children can fulfill their basic psychological need for relatedness. This somewhat negative view of responsive parenting may minimize the strength of the relationship between the mother's responsive parenting behaviors and her child's self-regulation development in Korea.

This result suggests that we must be cautious about the cultural and situational contexts in which parenting occurs when exploring how mothers' specific parenting behaviors function in the relationship with children's outcomes, and even when examining the nature of parenting types or specific parenting behaviors that, in function or the nature of their relationship with children's outcomes, are best known or most commonly accepted as either positive or negative.

In sum, considering the culturally unique findings of the dimensions of the autonomy supportive parenting behaviors, the results of this study suggest that we must be cautious about

the culturally unique meaning inherent in Korean mothers' autonomy supportive parenting behaviors, and the effects of these behaviors on children's self-regulation development from an indigenous perspective.

The importance of mothers' psychological resources as the antecedent of parenting behaviors that support children's self-regulation development. Another aim of the present was to identify how mothers' psychological resources function in their dynamic relationships with autonomy supportive parenting, and children's self-regulation and academic skills development within the contemporary Korean cultural context. I hypothesized that the two proposed psychological resources—PSE and enjoyment of parenting—would promote parenting in a manner that supports the child's self-regulation and academic skills development, and also prevent the mother from parenting in a way that interrupts their child's self-regulation development, as well as academic skills. Specifically, Korean mothers' PSE and the extent to which they enjoy their parental role (i.e., enjoyment of parenting) would promote mothers' responsive parenting behaviors and impede harshness, inconsistency, and permissiveness in parenting behaviors.

Overall, in support of my hypothesis, and consistent with the existing literature, mothers' psychological resources (PSE and enjoyment of parenting) were associated with autonomy supportive parenting behaviors at the correlation level. In terms of the paths from psychological resources to autonomy supportive parenting behaviors in the full model, PSE and enjoyment of parenting function as psychological resources that support mothers to parent in an autonomy supportive manner, but protect them from parenting in an autonomy interrupting manner.

Parenting self-efficacy. PSE positively predicted the extent of Korean mothers' responsive parenting but negatively predicted the extent of their permissive and inconsistent parenting. Contemporary Korean mothers who have efficacy in their parenting role are more likely to parent responsively and less likely to be permissive and inconsistent in that parenting. This result is largely consistent with previous studies on PSE that indicated that PSE functions as an important predictor of general positive parenting behaviors, as well as the dimensions of autonomy-supportive parenting types, such as granting autonomy, setting limits, and being responsive (Aunola et al., 1999; Celada, 2010; Dumka et al., 1996; Izzo et al., 2000; MacPhee et al., 1996), whereas it negatively predicts inconsistent parenting (Dumka et al., 1996) and laxness (Sanders & Woolley, 2004), even within the Korean cultural context (Choe, 2005; Yoon & Cho, 2011).

However, contrary to expectations, PSE did not significantly protect Korean mothers from exhibiting harsh parenting behaviors. We can understand this non-significant path in light of specific features of the contemporary Korean cultural model. Given the cardinal importance of educational achievement in child-rearing (parenting) and parents' willingness to sacrifice for their children's education, mothers may be likely to push their children to "study" or "do what is related to educational achievement/study" *harshly*, if they believe that it will benefit their children, regardless of the inappropriateness of the harsh parenting, which may offset the negative effects of PSE on aversive parenting.

Enjoyment of parenting. As with PSE and as expected, enjoyment of parenting positively predicted the extent of mothers' responsive parenting behaviors and negatively predicted the extent of their inconsistent parenting behaviors. However, enjoyment of parenting did not significantly predict the extent of mothers' permissive parenting behaviors. Instead, enjoyment of parenting negatively predicted the extent of harsh parenting behaviors. Korean

mothers who enjoy their parental role are thus more likely to parent responsively and less likely to be inconsistent and harsh in their parenting.

The broaden-and-build theory may provide a meaningful theoretical framework for interpreting these results. Previous research on this theory suggests that experiencing *positive emotions* may *broaden* individuals' momentary thought-action repertoires by supporting those individuals in *building* physical, social, intellectual, and psychological resources (Fredrickson, 1998; Fredrickson & Branigan, 2005; Fredrickson et al., 2003). Thus, due to the positive emotions that the enjoyment of parenting elicits, Korean mothers may have a wider range of ideas about supporting their children's self-regulation development; consequently, they may be able to synthesize information about different parenting behaviors that they expect to facilitate children's autonomous self-regulation development. These expanded reflections and considerations may encourage mothers to choose to parent in an autonomy-supportive manner with faith in their accrued psychological resources such as resilience or self-esteem. Thus, mothers who enjoy their parental role are more likely to parent responsively and are less likely to parent inconsistently and harshly, rather than being neither harsh nor inconsistent depending on their impulses, even when they confront stress.

Taken together, these results suggest the significance of supporting contemporary Korean mothers to achieve efficacy in their parenting role, and helping them experience positive emotions through enjoying their parenting role as a viable way to support these mothers in choosing to parent in an autonomy-supportive fashion. In particular, we must consider that Korean mothers have difficulty developing efficacy in their parenting and enjoying their parental role due to the extremely high parenting stress that arises from the cultural pressure to raise overachievers (Kim & Park, 2006; Lee, 2006; Park & Kwon, 2009; Yang & Shin, 2008). Furthermore, rapid modernization and industrialization in South Korea have led to a lack of role models on whom mothers can rely, which only increases their stress in performing their parenting role (Park & Kwon, 2009; Yang & Shin, 2008). This also has contributed to contemporary Korean mothers' vulnerability to insufficient efficacy in their parenting role and their difficulty in enjoying that role. Therefore, it may be of enormous value to carry out additional studies investigating methods of providing Korean mothers with opportunities to develop high PSE and experience enjoyment in performing their parental role within the stressful situational and cultural context of contemporary South Korea.

Within-group variations in the relationship between the mothers' psychological resources, autonomy supportive parenting behaviors, and children's self-regulation and academic skills development by gender. As discussed, the design of the present study was intended to uncover the dynamic relationship between mothers' psychological resources, autonomy supportive parenting, and children's self-regulation and academic skills development within the contemporary Korean cultural context. The features of each path in the dynamic relationship became clear when considering the situational and cultural contexts in which the mothers socialize their children.

However, since it is important to acknowledge the heterogeneity within a particular cultural group (Gjerde, 2004; Holloway, 2010), the present study also aimed at uncovering the variations in the relationships between the antecedents of the autonomy supportive parenting behaviors (enjoyment of parenting and PSE), specific autonomy supportive parenting behaviors, and children's autonomous self-regulation within the Korean context. Paying attention to the two factors may lead to within-group variations in the parents' resources, such as their level of

education, and the children's dispositional characteristics, such as gender. The present study investigated whether within-group variations exist in the dynamic relationship between mothers' psychological resources, the specific autonomy supportive parenting behaviors, and the children's self-regulation and academic skills development via these two factors. I had hypothesized that these two factors would moderate the relationship. In other words, I expected that there would be within-group variations in these relationships.

First, consistent with the hypothesis, gender moderated the *emotional* self-regulation model pathways. The *dynamic relationship* between the mothers' psychological resources, specific autonomy-supportive parenting behaviors, and the children's emotional self-regulation and academic skills development differed between mothers of boys and mothers of girls. In particular, there were significant gender-related variations in the paths from enjoyment of parenting to permissiveness in parenting and the paths from permissiveness in parenting to a child's emotional self-regulation development. Among mothers of boys, those who enjoyed their parental role were more likely to parent permissively; permissiveness in the parenting behaviors of mothers of boys did not significantly predict their sons' emotional self-regulation development. However, for mothers of girls, those who enjoyed their parental role were less likely to parent permissively; permissiveness in the parenting behaviors of mothers of girls negatively predicted their daughters' emotional self-regulation development.

The reason for these results may be due to two traditional cultural characteristics. First, Korean society has long been male-dominated, which has naturally resulted in a preference for sons, a fairly common cultural characteristic throughout East Asia due to the cultural influence of Confucianism. Sons, especially first-born sons, were supposed to *lead* the family as they grew, while girls were expected to leave the family upon marriage. This has caused Korean parents to raise their sons with the expectation that they would gain recognition in society and elevate the family through their accomplishments. Parental expectations of and pressure to achieve placed on Korean sons, especially the eldest, have created a context of tension and pressure that influences their upbringing. Although it is true that Korea has undergone innumerable cultural changes due to its acceptance of Western influence and rapid industrialization, the preference for sons remains deep-rooted and thus persists even today. Given this cultural context, it is possible that when Korean mothers experience the enjoyment of parenting, that may positively function as a psychological resource that protects them from excessively driving their sons to achieve and further encourages them to parent permissively, at least to some degree. Such comparative permissiveness can offer sons a sense of liberation from parental oppression that may compensate for the negative effects influencing their self-regulation development.

On the other hand, girls were traditionally less important in Korean society in terms of carrying on the family line. In addition, since opportunities for education or social mobility were scarce, girls experienced less emphasis on educational achievements. However, girls' opportunities for education have expanded as Korean society modernized and industrialized, and their access to social mobility has increased dramatically. Korean parents, though, appear to retain a pattern of offering positive feedback to girls rather than pressuring them into growth and achievement. Furthermore, compared to a first-born son who is under the pressure and expectations of his parents to achieve success and recognition, the psychological burden for daughters may be meaningfully lower. Given the cultural context in which preschool-aged Korean girls are socialized, it is possible that when the mothers of girls derive positive emotions from enjoying their parental role, they are likely to choose to parent in an autonomy-supportive manner instead of exhibiting laxness or permissiveness. Furthermore, permissiveness in their

parenting behaviors may impede their daughters' emotional and cognitive self-regulation development.

Second, contrary to expectations, the mothers' level of education (high school or less versus at least some college) did not moderate the children's emotional or cognitive self-regulation model pathways. Nevertheless, when looking at each specific pathway in the full SEM model, an important result emerged. The path from inconsistent parenting behaviors to the child's emotional and cognitive self-regulation was stronger for mothers who had completed high school or less than for mothers who had completed some college or more. Specifically, for mothers who had completed high school or less, inconsistent parenting behaviors *significantly positively predicted* their children's emotional and cognitive self-regulation development. In contrast, for mothers who had completed at least some college, inconsistent parenting behaviors did not significantly predict their children's self-regulation development, whether emotional or cognitive.

As discussed above, due to the strong emphasis on education, contemporary Korean mothers are likely to be forceful in urging their children to succeed in school. This cultural characteristic may lead Korean children to feel liberated and flexible or even autonomous rather than uncomfortable or irrational when they perceive inconsistency in their mothers' parenting behaviors. Moreover, inconsistency in mothers' parenting behaviors positively predicted their children's self-regulation development. However, these results suggest that the strength of this culturally unique relationship between inconsistent parenting behaviors and children's self-regulation development differs between mothers who have completed high school or less and those who have completed at least some college. One possible interpretation of this result is that differences exist between the two groups in terms of the *strictness* of their parenting behaviors. Compared to those who have completed at least some college, mothers who have completed high school or less may be much more likely to be highly forceful in driving their children to succeed in school. Thus, when their children perceive inconsistency in their parenting behaviors, they may be more likely to feel liberated or even autonomous, which may contribute to significantly positively predicting their emotional and cognitive self-regulation development.

In sum, by considering the within-group variations, this study found evidence that the culturally unique nature of the relationship between the specific autonomy supportive parenting behaviors and children's self-regulation development does not apply equally to every individual in this cultural context. In other words, by clarifying that cultural features exchange influences in forming the nature of the dynamic relationship between autonomy supportive parenting and children's self-regulation development according to individual characteristics, such as the child's gender and the mother's level of education, this study indicates the need for an approach that focuses on the role of an individual who enjoys his or her cultural features, forms the culture, and interacts dynamically with the cultural features, rather than on a nationally bounded culture or a culture as a static theme.

Limitations

It is essential to interpret the findings of this study in light of the research limitations. The first limitation concerns the measures that I used in this study. The measures assessing the extent of the enjoyment of parenting and autonomy supportive parenting were limited in that previous studies had not verified the validity of each measurement. Although the results of the

CFA were satisfactory, thus confirming the construct validity of the two measurements, researchers must cautiously consider that each of the measurements of the four specific autonomy supportive parenting dimensions, as well as enjoyment of parenting, showed relatively lower internal consistency (reliability). Therefore, it is necessary to develop a measurement that comprises more sophisticated items by following a validation procedure. Moreover, a future investigation into whether the results of this study can be equally replicated using the validated measurement is warranted.

The sample represents another limitation, as it was too small to represent contemporary Korean mothers and preschool-aged children ($n = 234$), considering the demographic diversities, depending on the region in Korea. In addition, we targeted kindergartens in a particular region of Korea (that is, the Incheon region); therefore, the sample represents Korean mothers and their children in this particular region. In addition to its size, the sample is limited in diversity. Therefore, further studies would benefit from using samples representing more diverse features; for example, researchers could reach out to mothers and their children in diverse regions by considering the neighborhood characteristics and SES, or target those who have achieved diverse educational levels, to obtain a sample that more appropriately represents the contemporary Korean mothers and their children. If researchers could compose such a diverse sample, they could contribute to clarifying the culturally unique nature of the within-group variations in the dynamic relationships between mothers' psychological resources, autonomy supportive parenting, and children's self-regulation development within the contemporary Korean context. Then they may clarify how each mother and her child or children can respond actively to the influences of the culturally unique features of contemporary South Korea and understand the nature of the relationships in their cultural context.

Future Directions

I propose several directions for future research. First, to better understand the culturally nuanced nature of the relationships between the antecedents of parenting, autonomy supportive parenting, children's self-regulation development, and children's academic skills development within the contemporary Korean cultural context, an *emic approach* will be necessary. In particular, this study focused on how the specific autonomy supportive parenting behaviors that SDT theorists proposed function in their relationship with children's self-regulation development within the contemporary Korean cultural context. Since an argument in this study was that differences exist in how children perceive their parents' specific autonomy supportive parenting behaviors across different cultures, due to the indigenous culturally unique meaning inherent in each parenting behavior, future studies must uncover the (Korean) indigenous cultural concept that is inherent in each specific autonomy supportive parenting behavior by applying a native appreciation of the contemporary Korean cultural context (that is, an *emic approach*). With an insightful understanding of the Korean culture, one can not only identify the culturally nuanced concept inherent in each autonomy supportive parenting behavior but also develop a culturally nuanced measurement composed of items reflecting these concepts. Thus, such research can clarify how Korean mothers' specific autonomy supportive parenting behaviors, measured by reflecting these culturally unique concepts, fundamentally function in their relationship with their children's self-regulation development.

Second, this study was aimed at examining the dynamic mediated relationship between the antecedents of parenting, autonomy supportive parenting behaviors, and children's self-

regulation and academic skills development within the contemporary Korean cultural context. However, without comparative studies including other cultural contexts, the appropriateness of the exploration of the culturally unique nature of the relationship within the contemporary Korean cultural context faces limitations. Thus, in order to understand the nature of the relationship, future researchers would benefit from conducting cross-culturally comparative analyses. In particular, conducting a comparative analysis with mothers and their young children within Western cultural contexts could more appropriately illuminate the nature of the relationship between autonomy supportive parenting behaviors and children's self-regulation development within the contemporary Korean cultural context. Furthermore, China and Japan share many cultural similarities with Korea, and the three cultures have exerted influences on each other. Thus, a future comparative study including Chinese and Japanese mothers and their children might clarify the relationships between the antecedents of parenting, autonomy supportive parenting behaviors, and the children's self-regulation and academic skills development. Then, a comparison of the results with those of Korean mothers and their children might offer a more nuanced understanding of the unique Korean cultural features, not merely those of collectivistic cultures.

Third, it would be valuable for future research to utilize an individual-oriented approach. This study characterized the culturally unique features of the relationships between the antecedents of parenting, autonomy supportive parenting behaviors, and children's self-regulation and academic skills development among Korean mothers and their preschool-aged children. Since these features were not shared equally among all the contemporary Korean mothers and their children, this study attempted to discover the within-group variations. Since the nature of the relationship differed according to the gender of the child, it is possible that an individual is not passively affected by a cultural feature, and that each characteristic in a particular context interacts with a particular cultural feature. Using qualitative approaches, future studies should investigate how a mother and her child(ren) interact with their cultural and situational contexts, and how they create the relations in the process where each mother and her child(ren) interact with each other. As Holloway (2010) qualitatively examined how individual Japanese mothers confront their indigenous cultural aspects, researchers must consider the psychological process of mothers and their children in the mechanism of the relationship between the specific autonomy supportive parenting behaviors and children's self-regulation development in parallel with a quantitative examination. Such an approach will also contribute toward showing much more clearly how "culture" functions under the mechanism by uncovering the role of the individual in creating the culturally nuanced nature of the mechanism. In addition, by investigating each path qualitatively, a deeper understanding of the mechanism of the relationship between parenting and children's self-regulation would likely develop.

Conclusion

This study investigated the dynamic relationships between contemporary Korean mothers' psychological resources, autonomy supportive parenting behaviors, and their young children's self-regulation and academic skills development. The results indicate that the four autonomy supportive parenting behaviors (harshness, permissiveness, inconsistency, and responsiveness) have a *unique cultural function* in these relationships within the Korean cultural context. Furthermore, as the antecedents of the parenting behaviors that support the children's self-regulation development, the mothers' psychological resources (i.e., PSE and enjoyment of

parenting) enabled them to parent in a way that supported their children's self-regulation development. Finally, the nature of this relationship varied depending on the child's gender. In particular, the within-group variations showed that we should not assume that all parents within a particular cultural context share their cultural features in a similar manner.

By thoroughly considering the situational and cultural contexts of these contemporary Korean mothers and their young children, this study contributes toward providing a better understanding of contemporary Korean mothers and their children, who are suffering due to the rapidly changing environment in South Korea and the overemphasis on educational achievement, and proposes means for supporting these mothers to facilitate the self-regulation development of their young children in a culturally nuanced way. Furthermore, the proposed framework for investigating the antecedents of parenting, parenting behaviors, and children's outcomes within a particular cultural context can help us capture how to deal with culture in investigating parenting, which occurs within a particular culture, and shed light on the importance of further considering how individual mothers and their children react differently and create cultural features in their everyday interactions with each other.

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Appendix Instruments

Parenting Self-efficacy

-- BPSE-R

Response Format; "Not Confident at all (1)," "Slightly Confident (2)," "Fairly Confident (3)," "Confident (4)," "Very Confident (5)," "Completely Confident (6)"

[Anger management]

11pc01 To control anger or frustration

11pms3 Control my emotions in front of my child

11pms4 Avoid over-reacting when my child misbehaves

11pms5 Create a peaceful, happy home

[Closeness communication]

11pms1 Listen to my child

11pms2 Understand my child's feelings

11pms6 Set a good example by being polite and respectful to others

11pms7 Explain things so that my child will understand

11pms8 Praise my child when he/she does well

[Academic skills & school prep]

11pc01 To eat a variety of nutritious foods

11pc02 To get enough sleep

11pc03 To be polite (e.g., say please and thank you)

11pc012 To enjoy reading a picture book

11pc014 To learn to count things correctly

11pc016 To learn to write his/her name

11pc018 To get enough exercise

11pc019 To avoid colds and other illnesses

[Good mother]

11pc04 To express thoughts clearly

11pc05 To get along with other children

11pc06 To continue trying even when something is difficult

11pc07 To help other children when they need it

11pc08 To be interested in learning new things

11pc09 To care about other people's feelings

11pc010 To pay careful attention to what he/she is doing

11pc013 To try to do things on his/her own

11pc015 To tell the truth

11pc017 To behave well without being told to do so by an adult

11pms9 Discipline my child firmly when he/she misbehaves

Enjoyment of Parenting

-- Weinberger Parenting Inventory-Parent version (WPI-PAR)

WPI-PAR – True or False Items

Response format; "False or mostly false (1)," "Somewhat false (2)," "Not sure (3)," "Somewhat true (4)," "True or mostly true (5)"

WPI-PAR – Frequency Items

"Almost Never (1)," "Not Often (2)," "Sometimes (3)," "Often (4)," "Almost always (5)"

11wpt4 I enjoy the day-to-day chores of being a parent

11wpt9 If I could live my life over, I would definitely want to have kids again

11wpt2 I really enjoy spending time with my child

11wpt7 I find being a parent very satisfying

11wpt11rv REVERSE- I feel weighed down by the burdens of being a parent

11wpt6 I love the time I spend with my child

Autonomy-Supportive Related Parenting Behaviors – harsh, permissive, inconsistent, and responsive parenting

-- Weinberger Parenting Inventory-Parent version (WPI-PAR)

WPI-PAR – True or False Items

Response format; "False or mostly false (1)," "Somewhat false (2)," "Not sure (3)," "Somewhat true (4)," "True or mostly true (5)"

WPI-PAR – Frequency Items

"Almost Never (1)," "Not Often (2)," "Sometimes (3)," "Often (4)," "Almost always (5)"

[Harsh parenting]

11wpt4 I threaten my child with kinds of punishments I would never actually use

11wpt5 My child feels my punishments are unfair

11wpt13 I am easy on my child one minute and hard on my child the next

[Permissive parenting]

11wpt2 People tell me that I let my child get away with too much

11wpt6 I back down from a threatening punishment if my child really gets upset and might "make a scene"

11wpt8 I let my child get away with things that maybe I should be tougher about

11wpt17 I let my child do what he/she wants in situations in which maybe I should be stricter

[Inconsistent parenting]

11wpt3 Sometimes I really get after my child, while other times that same thing doesn't really bother me

11wpt6 The punishments I decide on are often influenced by what mood I am in

11wpt8 I have a habit of suddenly getting upset about things after letting them "slide" for a while

11wpt3 My child has a difficult time figuring out when I will disapprove of something he/she has done

11wpt9 I let my child buy things that I'm not sure are good things for him/her to have

11wpt10 I let my child bend the rules more than I should

[Responsive parenting]

11wpt1 I often tell my child how proud I am of him/her

11wpt5 I am almost always able to follow through when I agree to do something with my child

11wpt1 I spend a lot of my free time doing things with my child or taking him/her places

11wpt14 I make spending time with my child a high priority

Child's self-regulation (Emotional regulation skills and Effortful cognitive regulation)

-- Social competence scale

Response format; "Not at all (0)," "A little (1)," "Moderately well (2)," "Well (3)," "Very well (4)"

[Emotional regulation skills]

scs2 Can accept things not going his/her way
scs3 Copes well with failure
scs6 Accepts legitimate imposed limits
scs7 Expresses needs and feelings appropriately
scs8 Thinks before acting
scs11 Can calm down when excited or all wound up
scs12 Can wait in line patiently when necessary
scs14 Is aware of the effect of his/her behavior on others
scs16 Plays by the rules of the game
scs18 Controls temper when there is a disagreement
[Effortful cognitive regulation skills]
scs1 Functions well even with distractions
scs4 Is a self-starter
scs5 Work/plays well without adult support
scs10 Stays on task
scs17 Pays attention