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# Parenting Styles and Overweight Status in First Grade

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## ABSTRACT

**OBJECTIVE.** The goal was to determine the relationship between the 4 parenting styles (authoritative, authoritarian, permissive, and neglectful) and overweight status in first grade.

**METHODS.** Data from the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development were analyzed. Children with complete data for parenting parameters at 54 months and measured weight and height in first grade were included in the analysis. Overweight was defined as BMI of  $\geq 95$ th percentile. The 4 parenting styles were constructed with 2 scales, namely, maternal sensitivity and maternal expectations for child self-control. Multivariate logistic regression analysis was used to evaluate the relationship between parenting style and overweight in first grade, controlling for gender, race, maternal education, income/needs ratio, marital status, and child behavior problems.

**RESULTS.** A total of 872 children, 11.1% overweight and 82.8% white, were included in the analysis. Children of authoritarian mothers ( $n = 298$ ) had an increased risk of being overweight, compared with children of authoritative mothers ( $n = 179$ ). Children of permissive ( $n = 132$ ) and neglectful ( $n = 263$ ) mothers were twice as likely to be overweight, compared with children of authoritative mothers. Of the covariates, only income/needs ratio was significant and did not alter the relationship between parenting style and overweight risk.

**CONCLUSIONS.** Among the 4 parenting styles, authoritarian parenting was associated with the highest risk of overweight among young children. Understanding the mechanisms through which parenting styles are associated with overweight risk may lead to the development of more-comprehensive and better-targeted interventions.

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### Key Words

parenting, childhood overweight

### Abbreviations

NICH—National Institute of Child Health and Human Development  
SECCYD—Study of Early Child Care and Youth Development  
OR—odds ratio  
CI—confidence interval

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THE PREVALENCE OF childhood overweight has nearly tripled over the past 30 years.<sup>1</sup> Several factors are associated with an increased risk of childhood overweight, including parental BMI,<sup>2,3</sup> parental education and income level,<sup>4</sup> ethnic minority status,<sup>4,5</sup> and childhood behavioral problems.<sup>6</sup> Although specific feeding behaviors, such as insisting that a child clear his or her plate, have been associated with childhood overweight in white middle-income populations,<sup>7</sup> the association between overall parenting style and childhood overweight is not clearly defined.

Parenting style is considered a characteristic of the parent that is stable over time and constitutes the environmental and emotional context for child-rearing and socialization.<sup>8,9</sup> It also establishes a framework against which children can interpret particular parenting behaviors.<sup>9</sup> Therefore, parenting style may have a greater impact on shaping the daily activities, eating behavior, emotional functioning, and ultimately overweight risk of children than selected parenting or feeding practices alone. Prevention and treatment strategies that address parenting style as well as specific behaviors may be more successful in preventing childhood overweight than current efforts focusing on domain-specific behaviors alone.

The 4 classic parenting styles, as first described by Baumrind<sup>10</sup> and later modified by Maccoby and Martin,<sup>11</sup> are authoritative, authoritarian, permissive, and neglectful. Maccoby and Martin<sup>11</sup> operationalized the construct of parenting style by defining it in 2 dimensions, namely, (1) demands for maturity or self-control and (2) sensitivity and emotional involvement (Fig 1). Authoritative parents have high demands for maturity and self-control from their children but also display high levels of sensitivity, emotional warmth, and involvement. There is often a give and take between the parent and child in which the parent acknowledges the child's worth and opinions but maintains certain limits. The authoritative parenting style is often considered the ideal and has been associated with improved child outcomes, such as higher academic achievement, increased self-regulatory ability, frequent use of adaptive strategies,

fewer depressive symptoms, and fewer risk-taking behaviors.<sup>12–16</sup> In contrast, authoritarian parents have high demands for self-control but low levels of sensitivity. They often are insensitive to the child's developmental needs, providing minimal emotional support, and are viewed as strict disciplinarians. The authoritarian parenting style has been associated with poorer outcomes among children, such as lower academic grades, compared with the authoritative style. However, these results are not consistent across different ethnic groups.<sup>17,18</sup> Permissive parenting is characterized by low expectations for self-control and discipline in the setting of high sensitivity and warmth. Children from these families may be more self-confident but often show lower levels of self-control (eg, higher rates of drug use and school misconduct) than do children from authoritative or authoritarian homes.<sup>19</sup> Neglectful parenting is defined by low levels of both demands for self-control and sensitivity. Neglectful parenting is associated typically with unfavorable child outcomes, such as high rates of depression, smoking, and poor school achievement and psychosocial development.<sup>16,19</sup>

Research relating parenting styles to childhood overweight status, eating behavior, and physical activity levels is limited. In this study, we examined the association between parenting styles indexed at 54 months and children's overweight status 2 years later, in first grade, a time during which early self-regulatory competencies are first consolidating.<sup>20</sup> We hypothesized that children living in households with authoritative parents (high sensitivity and high expectations for self-control) would have a decreased risk of being overweight in first grade, compared with children living in households with other parenting styles. Data from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development (SECCYD) were used for this study.

## METHODS

### Participants

In 1991, 1364 families were recruited at the time of the child's birth, with a conditional random sampling plan designed to prevent selection bias. Children were recruited at 10 sites across the United States. Eligibility criteria included a singleton child with an uncomplicated delivery; a healthy mother who was  $\geq 18$  years of age and could speak English; and a family that resided within 1 hour of the research site, lived in a relatively safe neighborhood, and was not planning to move. Families participated in multiple assessments at home, in the laboratory, and by telephone, beginning at birth. We used data collected at 54 months of age and during the child's first grade year in school.

The original cohort included 1364 families. Information about the original cohort is presented elsewhere.<sup>21</sup>

	High expectations for self-control	Low expectations for self-control
High sensitivity	<b>Authoritative:</b> Respectful of child's opinions, but maintains clear boundaries	<b>Permissive:</b> Indulgent, without discipline
Low sensitivity	<b>Authoritarian:</b> Strict disciplinarian	<b>Neglectful:</b> Emotionally uninvolved and does not set rules

FIGURE 1  
Parenting styles.

By 54 months of age, 1226 children were still enrolled.<sup>22</sup> Of these, 993 had height and weight data in first grade. Children with missing data for either of the 2 parenting measures (maternal sensitivity or maternal expectations for self-control) were excluded from the analysis, which resulted in a final sample size of 872 subjects (64% of the original cohort). The study was approved by the institutional review boards of all relevant institutions.

## Measures

### *Dependent Variable*

The outcome of interest was the child's overweight status in first grade (when children's average age was  $84.7 \pm 3.6$  months). Heights and weights were measured during the laboratory visit scheduled for spring of the child's first grade year in school. The protocol for anthropometric measures was standardized across sites and is detailed elsewhere.<sup>23</sup> BMI values were calculated and percentiles were derived on the basis of normative values from the National Center for Health Statistics growth curves.<sup>24</sup> Overweight was defined as BMI of  $\geq 95$ th percentile for age and gender.

### *Independent Variables*

The 4 parenting styles (authoritative, authoritarian, permissive, and neglectful) were approximated and constructed with 2 scales (mirroring the definition by MacCoby and Martin<sup>11</sup>), namely, maternal sensitivity to the child's needs and expectations for self-control from the child. Maternal sensitivity to the child's needs was coded from videotapes of a standardized interaction task<sup>25</sup> conducted during the laboratory visit at 54 months of age. The task involved 15 minutes of semistructured activities, 2 of which were designed to be difficult for the child, requiring the mother's involvement; a third activity encouraged play between the mother and child. All interactions were videotaped and coded by trained observers who were blinded to the study hypotheses. The task was designed for the NICHD SECCYD and has been validated against a variety of child outcomes.<sup>25</sup> Maternal behaviors were scored on a scale of 1 to 7 (7 being given for optimal behaviors) for each of 3 scales, namely, supportive presence, respect for autonomy, and hostility (Appendix 1). Maternal sensitivity was calculated by the NICHD SECCYD as a composite score of these 3 measures (with hostility score reversed) (Cronbach's  $\alpha = .82$ ). The potential range was 3 to 21, with higher scores indicating greater maternal sensitivity to the child's needs.

Maternal expectations for self-control were assessed through maternal responses to a 32-item survey developed by Greenberger and Goldberg<sup>26</sup> and modified for the NICHD SECCYD. Higher scores on the scale described by Greenberger and Goldberg<sup>26</sup> are associated with greater use of authoritative parenting styles. The

maternal expectations for self-control subscale included 11 items from the overall measure (Appendix 2). Mothers rated how often they expected certain behaviors from the child on a 7-point Likert scale, with higher scores indicating greater expectations for self-control (potential range: 7–77; Cronbach's  $\alpha = .82$ ).

Scores from the maternal sensitivity and expectations for self-control scales were dichotomized and combined (as described in Fig 1) to serve as proxies for the 4 parenting styles. Because there are no standard cutoff points for the scales, we elected to dichotomize them at the medians. Scores on the median were included in the lower sensitivity or self-control group. Simply stated, mothers with high expectations for self-control and high sensitivity were considered authoritative. Mothers with high expectations for self-control and low sensitivity were considered authoritarian. Mothers with low expectations for self-control and high sensitivity were considered permissive, and mothers with low expectations for self-control and low sensitivity were considered neglectful.

Two-category race (white or not white) and family income/needs ratio (as a continuous variable) were included as covariates in the model a priori, on the basis of previous studies.<sup>4,5</sup> Additional variables tested as potential covariates included gender, maternal education (years of education as a continuous variable), presence of spouse or partner in the home, and child behavioral problems, as indexed with the Child Behavior Checklist<sup>27</sup> completed by the mother at 54 months. The Child Behavior Checklist total score is standardized for age and gender and reported as a *t* score, with a potential range of 23 to 100. Higher scores indicate greater overall behavior problems.

### Statistical Analyses

All analyses were conducted with SAS version 8.02 software (SAS Institute, Cary, NC). To determine the relationship between parenting styles and overweight status in first grade, multivariate logistic regression modeling was performed. The initial unadjusted model included maternal sensitivity and expectations for self-control. An adjusted analysis testing all potential covariates used the likelihood ratio statistic to derive the most parsimonious model. We then tested the interaction between maternal sensitivity and expectations for self-control and created the 4 parenting styles, as described earlier. Adjusted odds ratios (ORs) and their corresponding 95% confidence intervals (CIs) were calculated from the logistic regression model.

## RESULTS

Our sample included 872 children, 49% male and primarily white (82.8%) (Table 1). Approximately 11.1% of the children were overweight, and an additional 13.4% were at risk for overweight. Mothers had a mean

**TABLE 1** Demographic Characteristics and Covariates

	Total Sample (n = 872)	Overweight <sup>a</sup> (n = 97)	Not Overweight (n = 775)
Child gender, n (%)			
Male	427 (49.0)	53 (54.6)	374 (48.3)
Female	445 (51.0)	44 (45.4)	401 (51.7)
Child race, n (%)			
White	722 (82.8)	81 (83.5)	641 (82.7)
Other	150 (17.2)	16 (16.5)	134 (17.3)
Living with spouse or partner, n (%)			
Yes	767 (87.9)	82 (84.5)	685 (88.4)
No	105 (12.1)	15 (15.5)	90 (11.6)
Maternal sensitivity, n (%)			
High	311 (35.7)	20 (20.6)	291 (37.6)
Low	561 (64.3)	77 (79.4)	484 (62.4)
Maternal expectations for self-control, n (%)			
High	477 (54.7)	58 (59.8)	419 (54.1)
Low	395 (45.3)	39 (40.2)	356 (45.9)
Maternal education, mean (SD), y	14.6 (2.4)	14.0 (2.4)	14.6 (2.4)
Income/needs ratio, <sup>b</sup> mean (SD)	3.6 (3.1)	2.9 (2.2)	3.7 (3.2)
Child Behavior Problems Checklist total standard score, <sup>c</sup> mean (SD)	50.6 (9.5)	52.3 (9.1)	50.5 (9.5)

<sup>a</sup> Overweight indicates BMI of  $\geq 95$ th percentile.<sup>b</sup> Income/needs ratio of  $\leq 1$  indicates poverty.<sup>c</sup> Child Behavior Problems Checklist scores range from 23 to 100, with higher scores indicating more behavior problems.

sensitivity score of  $17.1 \pm 2.8$  (range: 5–21; median: 18). They had a mean score for expectations for self-control of  $54.8 \pm 8.0$  (range: 24–76; median: 55). The mean maternal education was  $14.6 \pm 2.4$  years, and the mean income/needs ratio was  $3.6 \pm 3.1$ .

In the initial unadjusted analysis, maternal expectations for self-control were not associated with child overweight (OR: 1.30; 95% CI: 0.85–2.00;  $P = .23$ ) (Table 2). However, high maternal sensitivity was associated with a lower risk of overweight (OR: 0.42; 95% CI: 0.26–0.72;  $P = .001$ ). In the adjusted analysis including race and income/needs ratio, only the income/needs ratio was significant (Table 2). However, neither race nor income/needs ratio altered the relationship between maternal sensitivity and risk of overweight. The other potential covariates (gender, maternal education, presence of spouse or partner in the home, and child behavioral

problems) were tested in the model and were not significant.

The interaction term for sensitivity and maternal expectations for self-control was significant ( $P = .003$ ). We therefore proceeded with the final model in which we combined maternal sensitivity and expectations for self-control (as described above) to create categories approximating the 4 parenting styles described by Baumrind<sup>10</sup> and then tested their association with child overweight in first grade. With adjustment for race and income/needs ratio, 3.9% of children with authoritative mothers (high sensitivity and expectations for self-control;  $n = 179$ ) were overweight and 17.1% of children with authoritarian mothers (low sensitivity and high expectations for self-control;  $n = 298$ ) were overweight (Fig 2). The prevalence rates of overweight among children with permissive mothers (high sensitivity and low expecta-

**TABLE 2** ORs and 95% CIs for Overweight in First Grade, Based on Logistic Regression Models Testing Main Effects of Sensitivity and Self-control

	OR (95% CI)		
	Unadjusted	Adjusted for Race and Income/Needs Ratio	Adjusted for All Potential Covariates
Self-control (high versus low)	1.30 (0.85–2.00)	1.25 (0.81–1.96)	1.27 (0.82–1.96)
Sensitivity (high versus low)	0.42 (0.26–0.72) <sup>a</sup>	0.45 (0.26–0.76) <sup>a</sup>	0.47 (0.28–0.81) <sup>a</sup>
Gender (male versus female)			1.23 (0.81–1.92)
Race (white versus other)		1.54 (0.84–2.86)	1.54 (0.82–2.94)
Maternal education			0.98 (0.88–1.09)
Income/needs ratio		0.90 (0.82–0.99) <sup>b</sup>	0.92 (0.83–1.02)
Living with spouse or partner			0.97 (0.49–1.96)
Child behavior problems			1.01 (0.99–1.04)

<sup>a</sup>  $P \leq .01$ .<sup>b</sup>  $P \leq .05$ .



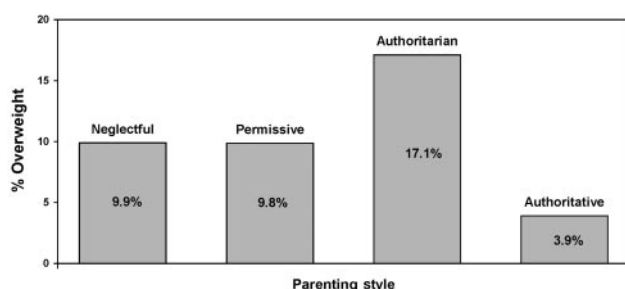


FIGURE 2

Prevalence of overweight according to parenting style, adjusted for income/needs ratio and race.

tions for self-control;  $n = 132$ ) and neglectful mothers (low sensitivity and expectations for self-control;  $n = 263$ ) were 9.8% and 9.9%, respectively.

In the final model, comparisons of the 4 parenting styles, with authoritative parenting style as the reference, demonstrated significant differences. Children with authoritarian parents had almost 5 times the odds of overweight in first grade, compared with children with authoritative parents (OR: 4.88; 95% CI: 2.15–11.10;  $P < .001$ ) (Table 3). The odds for children with permissive or neglectful parents were twice those for children with authoritative parents (permissive: OR: 2.84; 95% CI: 1.10–7.35;  $P = .03$ ; neglectful: OR: 2.67; 95% CI: 1.12–6.38;  $P = .03$ ). There was no statistical difference in child overweight risk between authoritarian parents and permissive parents.

To determine whether parenting style was affected by the child's previous weight status, we tested BMI  $z$  score at 36 months in the model. The inclusion of this variable in the model did not alter or attenuate the association between parenting style and overweight risk, providing evidence that parenting style was not affected by the child's previous weight status.

## DISCUSSION

In this study, we examined the relationship between parenting style, approximated by measurements of maternal sensitivity and expectations for self-control, and overweight in a national sample of parents and children. After testing for several potential confounders, we found that mothers with an authoritarian parenting style were significantly more likely to have children who were

overweight 2 years later, in first grade, compared with mothers with an authoritative parenting style. Permissive and neglectful parenting styles also increased childhood overweight risk, relative to the authoritative style.

Several studies have shown a relationship between parenting style and diet and activity patterns among children and adolescents,<sup>28–30</sup> but studies attempting to link parenting styles and childhood overweight status have had mixed results. Argas et al<sup>31</sup> did not detect a significant relationship between parenting style and risk of overweight in a cohort of children monitored from birth to 9.5 years, possibly because of the relatively small sample size. Another study, which did show a relationship between “neglectful” parenting and overweight status 10 years later,<sup>32</sup> was marked by poor measurements of parenting style (reported as teachers' perceptions of parental support and children's general hygiene). Our study adds to the sparse literature on parenting style and overweight risk by examining a large national sample with valid reliable measures.

These results provide evidence that a strict environment lacking in emotional responsiveness is associated with an increased risk of childhood overweight, regardless of a number of potential confounders. We can postulate several potential mechanisms of effect. It may be that parents with high expectations for self-control have more defined limits or boundaries regarding what and when their children eat. This level of structure could have a negative impact, depending on the degree of parental sensitivity displayed. There is literature showing that parental warmth and sensitivity are associated with parent-child cooperation and increased ability to regulate negative emotions.<sup>33,34</sup> Similarly, a parent who displays more warmth and consideration of the child's developmental abilities may foster a greater capacity in the child for regulating eating behavior. In contrast, a parent who is relatively insensitive to the child's emotional needs and development may impose a structure, such as requiring the child to clean his or her plate, that results in learning to eat on the basis of external cues rather than internal cues. With respect to activity level, parents who demand that a child exercise may cause the child to react in a negative manner toward physical activity and to lose any desire to exercise. However, a parent who is more sensitive to the child's interests may be able to engage the child in activities that are more enjoyable to him or her and to promote a natural desire to be physically active. Beyond specific parenting practices, living in a household that is regimented, with high expectations for self-control but without parental sensitivity to temper these expectations, may be relatively more stressful for some children. If the child's development of emotional self-regulation is not supported by parental sensitivity, then excessive eating may become a stress response.<sup>35</sup>

Sensitivity alone is not enough, however. Permissive

TABLE 3 Relative Odds of Overweight in the Adjusted Model

Parenting Style	OR (95% CI)
Authoritarian	4.88 (2.15–11.10) <sup>a</sup>
Permissive	2.84 (1.10–7.35) <sup>b</sup>
Neglectful	2.67 (1.12–6.38) <sup>b</sup>
Race (white versus other)	1.54 (0.83–2.86)
Income/needs ratio	0.89 (0.81–0.98) <sup>b</sup>

The authoritative style was the reference group.

<sup>a</sup>  $P \leq .01$ .

<sup>b</sup>  $P \leq .05$ .

parents, who display high levels of sensitivity but low expectations for self-control, also had children with an increased risk of overweight. Although an environment that is less strict may allow children the freedom to develop self-regulatory capacities, an environment without expectations or limitations may not afford children the kind of incentive and guidance needed to develop effective self-regulation of eating behaviors. Therefore, it is the combination of sensitivity and expectations for self-control that seems to create an optimal environment for children with respect to limiting overweight risk. Although we propose several mechanisms to explain the association between parenting style and childhood overweight, the exact mechanism through which parenting style exerts its influence is still not clear and requires additional study.

It is likely that eating behavior in young children is a function of both specific feeding practices and parenting style. A variety of parental feeding practices have been linked to an increased risk of overeating and thus overweight, including encouraging children to eat beyond satiety (ie, to “clean their plate”),<sup>7</sup> restricting the type and amount of food a child can eat,<sup>36–38</sup> and using food as a reward.<sup>7,39</sup> However, most previous research was in white, middle-income populations, and similar analyses with samples of diverse ethnic and socioeconomic status were unable to detect comparable associations.<sup>40,41</sup> Parenting style may provide a context for the impact of particular parenting practices on childhood overweight risk. However, the role of culture should not be ignored. It has been reported that black parents have more authoritarian parenting styles and Hispanic parents have higher levels of permissive parenting.<sup>16,17</sup> These styles might be expected to function somewhat differently in each group, affecting the interpretation of specific practices and ultimately their influence on child behavior.<sup>9</sup> Although parenting style may help to clarify the impact of specific parenting behaviors on childhood overweight, understanding this relationship in the context of cultural goals may be necessary to shed additional light on the issue and to give more direction to programs aimed at reducing obesity.

Baumrind<sup>8</sup> suggested that parenting style is a characteristic of the parent and is not altered by the child. Therefore, if we posit a causal pathway, we think it is unlikely that parenting style is a reaction to the child's weight. Although there is some evidence suggesting that parents who perceive their children as overweight respond by using certain feeding practices, such as restricting quantity and access to certain foods,<sup>42,43</sup> similar research examining the impact of parenting style has not been conducted. In this analysis, we controlled for BMI z score at 36 months and were unable to show any attenuation of effect of parenting style on child overweight in first grade. Therefore, it seems that parenting style was not affected by the child's previous weight

status and is most likely a stable factor affecting child weight. Despite this stability in parenting style, programs to help parents modify parenting behaviors do exist and can be successful, given the correct context.<sup>44–46</sup> However, altering parenting style is undoubtedly a difficult and unexpected task for primary care physicians. At this point, raising awareness among providers and parents regarding the association between parenting styles and child outcomes may be a first step until additional studies are conducted to examine the mechanism of impact and the consequences of modifying parenting styles.

There were several limitations to this study. The children excluded because of incomplete data were more likely to be of lower socioeconomic status and ethnic minority. It is possible that the parenting style of this group differed from that of the sample included in the analysis. However, testing for selection bias by adding a propensity score to the model did not seem to affect the results. The number of minority children in our sample was relatively limited, and extrapolation of these findings to low-income minority populations without additional study should be performed with caution. Another limitation of this study was our inability to use a standardized measure of parenting styles. However, 2 validated scales measuring maternal sensitivity and expectations for self-control were combined and used as proxies to reflect the construct of parenting style described by Baumrind.<sup>10</sup> These scales may be viewed as surrogates of parenting style, but additional validation against the parenting paradigm described by Baumrind<sup>10</sup> is needed. Finally, we were unable to include maternal or paternal BMI as a potential confounder, because data were not recorded originally. It is clear that biological or genetic factors are involved in the risk for some children to become overweight.<sup>2</sup> However, not all children with a biological or genetic risk factor become overweight,<sup>47</sup> and work by Faith et al<sup>42</sup> suggested that parenting style is a stable factor that is not dependent on parental weight status. Although biological factors play an important part in determining childhood overweight, environmental factors, such as feeding behaviors and parenting style, may be considered independent factors that help modify overweight risk. Additional studies are needed to determine the relative impact of each of these factors on childhood overweight.

## CONCLUSIONS

This study shows that authoritative parents (defined by high levels of maternal sensitivity and expectations for self-control) had the lowest prevalence of overweight children. Children of authoritarian parents (high expectations for self-control and low sensitivity) had the greatest odds of overweight. A better understanding of how these parenting styles affect child behavior patterns regarding eating and activity levels, independently and in conjunction with cultural norms and specific parenting

behaviors, may help to guide the development of more-comprehensive and more-effective prevention and treatment programs for overweight children.

## APPENDIX 1: MATERNAL BEHAVIORS RELATING TO MATERNAL SENSITIVITY

### Supportive Presence

On a scale of 1 to 7, 7 indicates that the parent provides support skillfully throughout the session. The parent is emotionally supportive and continuously reinforces the child's successes, no matter how small. The parent displays confidence in the child's efforts and redirects the child in such a way as not to undermine the child's ability to modify his or her behaviors. A score of 1 indicates that the parent fails in showing support to the child and is aloof, unavailable, or hostile to the child when he or she needs support.

### Respect for Autonomy

On a scale of 1 to 7, 7 indicates that the parent interacts with the child and acknowledges the validity of the child's perspective. The parent encourages the child to negotiate the course of action in the task while acknowledging the parent's intentions. The parent may model his or her own individuality and insist that his or her course of action be followed, but the parent continues to acknowledge the child's perspective in this interaction. A score of 1 indicates that the parent denies the child's individuality in the techniques he or she uses. The parent is intrusive and forceful in controlling the child.

### Hostility

On a scale of 1 to 7 (reverse coded), 1 indicates that the parent shows no sign of rejection. The parent may not be supportive but does not put down the child in any way. A score of 7 indicates that the parent displays frequent signs of rejection and hostility toward the child, to the point that his or her emotions are uncontrolled and suggest the possibility of abuse. The parent does not show warmth and is easily irritated by the child.

## APPENDIX 2: MATERNAL EXPECTATIONS FOR SELF-CONTROL

Questions included in the scale are: How often do you expect your child to (1) sit or play quietly (or refrain from interrupting) while adults are having a conversation? (2) Be agreeable about an unexpected change in plans? (3) Accept a new babysitter or caregiver without complaint? (4) Be patient when trying to do something difficult? (5) Go to bed without a hassle? (6) Refrain from interrupting when you are on the telephone? (7) Show self-control when disappointed? (8) Stay in bed once put to bed? (9) Be on "best behavior" when you are in public (church, store, bus, or train)? (10) Wait his or her turn without fussing? (11) Control anger outbursts (eg, no kicking, biting, and scratching)?

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