BEHAVIORS OF ADOLESCENT LATINA MOTHERS
AND THEIR TODDLERS DURING A SELF-REGULATION TASK

A thesis submitted
To Kent State University in partial
Fulfillment of the requirements for the
Degree of Master of Arts

By
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Introduction

Numerous environmental and biological factors have been identified as contributors to human development across the lifespan. One particular area of focus has been on how parenting practices influence young children’s behaviors as they develop. Much of this research has investigated specific relations between maternal behaviors and both desirable and adverse child outcomes. In the field of child psychopathology, these associations have implications for determining how maternal behaviors relate to the development of child internalizing and externalizing problems, which often emerge early in childhood and persist into late childhood, adolescence, and adulthood if left untreated.

One predictor of child functioning that has received attention with children in toddlerhood is self-regulation. Child regulatory abilities have been linked to various outcomes, such as internalizing and externalizing problems, school functioning, peer relations, and social adjustment (Blandon, Calkins, & Keane, 2010; Calkins, 2007). Many researchers have studied how different maternal behaviors can help or harm the development of a child’s self-regulatory abilities. Research paradigms that examine these associations require children to use regulatory strategies when performing certain behaviors, working toward goals, or inhibiting instinctive behaviors. However, many of these investigations involve populations of European American, middle-class, and adult mothers and their children. Much less is known about how these relations operate in samples with differing demographic characteristics, such as ethnic minorities, low-income groups, and adolescent mothers.
This study seeks to expand on previous research by examining how maternal behaviors affect child self-regulation in a sample of Latina, adolescent mothers and their toddlers. By observing behaviors of both mothers and their young children during a task designed to elicit self-regulation, I will consider how parenting techniques are associated with child regulatory responses within this specific population. Adolescent mothers are more likely than adult mothers to parent within a disadvantaged context; they often lack material resources, social support, and knowledge of parenting and child development (Bornstein, Cote, Haynes, Hahn, & Park, 2010; Hans & Thullen, 2009; McHenry, Kotch, & Browne, 1991). These factors have a prevalent influence on parenting of adolescent mothers and consequently place their children at higher risk for deficits in the development of self-regulation and increases in the incidence of externalizing disorders and poor social adjustment (Hans & Thullen, 2009; Kochanska & Kim, 2013). Additionally, among adolescent mothers ages 15 to 19, those of Latina ethnic origin have the highest birthrates in the United States, placing this ethnic population at risk (Martin, Hamilton, Osterman, Curtin, & Mathews, 2013). Research examining how parenting and environment relate to child development in at-risk groups helps to inform more appropriate psychological treatments for these individuals. Thus, it is particularly important to study populations of adolescent mothers and their children, given that the application of such findings to prevention and intervention strategies may buffer against risks and aide in the positive development of their children.

More centrally, this study seeks to examine variability within this population as a function of culture. Scholars have argued for more cultural research that focuses not just on differences between groups but that captures the range of cultural experience within an ethnic group (Li-Grining, 2012). I aim to investigate how mother-child behavioral associations might
differ by how closely Latina mothers identify with American culture as well as their ethnic culture of origin. While some aspects of parenting are thought to be fairly universal, others are unique to groups of individuals sharing cultural beliefs and values (Harkness & Super, 1996; Halgunseth, Ispa, & Rudy, 2006). Thus, the main goal of this study is to explore the concept that connections between parenting and child outcomes are not always ‘one size fits all,’ and that cultural factors should be considered in the implications of parenting research. Although this sample of young mothers may not be a normative representation of Latino parenting, it is important to study this group because of the developmental and contextual challenges they face and the benefits that this type of research can provide to them.

Development of Self-Regulation and Compliance

The term self-regulation, which holds various definitions, generally refers to the ability to control behaviors and emotional reactions, especially in situations during which one may have to inhibit a dominant response for a more socially accepted one (Kopp, 1982). Regulatory strategies first appear in infancy and develop throughout childhood as individuals have more interactions with their environments and learn how to adjust their inborn temperaments to situations that require socially desirable, regulated responses. Around 9 to 12 months, a typically developing child will first show some self-regulatory control that continues to increase over time. Early skills include displaying patterns of behavioral responses to environmental stimuli and controlling impulses (Kopp, 1982; Karreman, van Tuijl, van Aken, & Dekovic, 2006). Early self-regulation skills have known associations with later child behaviors, such that low regulatory abilities are often predictive of child externalizing problems, difficulty adjusting in school, trouble with peers, and poor adaptation to new social situations (Blandon et al., 2010; Calkins, 2007). Thus, it is important to study how these skills develop at an age when children may be
more amenable to intervention in order to prevent the emergence of problem behaviors later in life.

One known precursor to fully developed self-regulation is compliance, a child’s ability to perform or inhibit an action as requested by a parent or other superior; this skill emerges within the 12 to 18 month-old period of toddlerhood (Kopp, 1982). Many researchers have chosen to study this form of self-regulation, as the skills utilized in compliance develop fairly early in comparison to other regulatory skills; thus, when examining self-regulation in samples of young toddlers, measurements of compliance are typically the most developmentally appropriate (Kopp, 1982; Karreman et al., 2006).

Researchers frequently examine different types of compliant and noncompliant behaviors, which have unique correlates to maternal behaviors as well as future child behaviors and regulatory abilities (Kochanska, Tjebbes, & Foreman, 1998). These behaviors, which were first introduced by Kochanska and Aksan (1995), note a distinction between an internalized, self-controlled style of compliance (Committed Compliance) and a type of compliance that is more contingent upon continuous prompting or help from another (Situational Compliance). Additionally, types of noncompliant behaviors are typically conceptualized using categories of a child’s behaviorally calm approach while ignoring maternal directives (Passive Noncompliance), an emotionally regulated and self-assertive approach to noncompliance (Overt Resistance), or a non-regulated, emotionally reactive response (Defiance).

Younger toddlers tend to show more passive noncompliant or defiant behaviors, while older toddlers show less noncompliance and more self-assertion as a function of their developing abilities to express themselves verbally and to seek autonomy (Braungart-Rieker, Garwood, & Stifter, 1997; Crockenberg & Litman, 1990; Kochanska & Aksan, 1995). At 13 to 18 months, an
earlier stage in the development of self-regulation and compliance skills, children demonstrate both compliance and noncompliance; specifically, passive noncompliance is observed more frequently than defiance (Kochanska, et al., 1998; Lindsey & Caldera, 2005). Additionally, older toddlers and preschoolers show higher levels of committed compliance than their younger peers (Braungart-Rieker et al., 1997; Kochanska & Aksan, 1995). In samples of European American, middle-class families, by two-and-a half years children will show primarily committed compliance (Braungart-Rieker et al., 1997). The development of these different types of regulatory responses in compliance tasks is thought to be influenced by two main factors: parenting behaviors and child temperamental characteristics.

**Influence of Maternal Behaviors on Child Compliance**

The literature examining the links between maternal behaviors and child compliance often focuses on the compliance-eliciting strategies that mothers use. Typically, researchers concentrate on three types of maternal strategies: those characterized by mother-child collaboration, praise, and encouragement (Gentle Guidance), those utilizing a directive approach consisting primarily of commands (Control), and those that exhibit high levels of force and negativity (High Power Control; Kochanska & Aksan, 1995). As evidenced by previous research, some of these maternal behaviors have been shown to elicit compliance behaviors from young children, whereas others have been associated with less desirable noncompliant and defiant behaviors. For example, during a popular type of compliance task in which a mother has her child pick up a set of toys, those mothers who used more guiding behaviors had children who showed more committed compliance and less passive noncompliance during the task (Braungart-Rieker et al., 1997). Other researchers similarly found that children showing internalized, committed compliance were more likely to have mothers who used gentle guidance and non-
controlling behaviors (Kochanska & Aksan, 1995). Mothers who displayed primarily controlling and negatively controlling behaviors during clean-up and other compliance tasks had children who consistently showed more passive noncompliance and defiance and less committed compliance (Braungart-Rieker et al, 1997; Crockenberg & Litman, 1990; Rothbaum & Crockenberg, 1995).

In a meta-analysis of 41 studies examining parenting control behaviors and child compliance, results indicated that negative forms of control were most consistently associated with less compliance, whereas positive control techniques (i.e., guidance) provided varied results in terms of child behaviors. This analysis was limited to studies with child ages ranging from two to five years and samples from western countries due to acknowledged differences in parenting and self-regulation between western and non-western societies (Karreman et al., 2006). Other results have shown that an authoritative parenting style, characterized by a combination of guiding and controlling behavior, may be the most optimal for eliciting consistent compliance in young children (Crockenberg & Litman, 1990). Overall, the current state of the literature for early childhood (ages 1.5 to 5 years) suggests that gentle guidance is usually associated with more child committed compliance, less noncompliance, and less defiance; higher levels of control, whether simply directive or negative, tend to be related to less compliant and more noncompliant and defiant child behaviors (Braungart-Rieker et al, 1997; Karreman et al., 2006; Crockenberg & Litman, 1990; Kochanska & Aksan, 1995; Lindsey & Caldera, 2005; Rothbaum & Crockenberg, 1995). However, most of these findings come from studies involving middle-class, European American, adult mothers. Reviews and meta-analyses examining associations between parenting techniques and child self-regulation and compliance behaviors have noted the need to include ethnic minority and low SES groups in research samples (Karreman et al., 2006);
despite this call, there remains a dearth of research involving samples where the majority of participants are of non-European American heritage.

**Influence of Child Characteristics on Compliance**

Child characteristics such as age, gender, and temperament can affect observed behaviors as children develop. As previously discussed, children tend to exhibit more compliance and less noncompliance and defiance as they grow older. Although some researchers have noted differences in levels of compliance between young boys and girls (Calkins et al., 1998), others report no such differences (Braungart-Rieker et al., 1997). Currently, the literature does not suggest that any consistent trend exists in regards to gender differences and child compliance. However, researchers have noted a more clear influence by child temperament.

Temperament, a measure of innate reactivity to change (Braungart-Reiker, et al., 1997), has consistently shown associations with child compliance and noncompliance (Kochanska & Kim, 2013). Some researchers have investigated ways in which children’s compliant or noncompliant reactions to less desirable tasks are related to their inborn temperaments. Findings have shown that children reported to have difficult temperaments, characterized by high negative reactivity, tend to exhibit more noncompliant behaviors that are passive or defiant than children whose mothers reported them to be less reactive (Braungart-Rieker et al., 1997; Lindsey & Caldera, 2005). Others have looked more closely at this association and found that maternal behaviors may interact with child temperament, such that children with difficult temperaments may elicit more controlling and less guiding behaviors from their caretakers (Braungart-Rieker et al., 1997; Kochanska & Kim, 2013). Whether due to temperament, parenting factors, or an interaction of both, during toddlerhood children with negative temperaments tend to show less committed compliance and more defiance (Braungart-Rieker et al., 1997; Lindsey & Caldera,
2005). Accordingly, it is important to consider child temperament to better understand relations between parenting and compliance. In the current study, child temperament, measured as reactivity, is treated as a control variable in order to highlight the unique effects of maternal behaviors on child regulation behaviors beyond the influence of child characteristics.

**Influence of Contextual and Cultural Factors on Maternal Behaviors**

The link between maternal compliance-eliciting strategies and child self-regulatory behaviors has been consistently replicated in samples of European American, middle class, adult mothers (Karreman et al., 2006). However, for adolescent mothers, numerous social and environmental factors are implicated as risks to positive parenting (East, Chien, & Barber, 2012; McKenry, Kotch, & Browne, 1991, Moore & Brooks-Gunn, 2002). Adolescent mothers are still going through many developmental changes themselves, and they typically do not have as many resources available to them as older mothers (Hans & Thullen, 2009); thus, their children are more likely to be raised in environments that pose challenges to child development. At a proximal level, adolescent mothers less frequently use parenting techniques that are associated with positive outcomes in children, such as sensitivity and responsivity (Hans & Thullen, 2009; Moore & Brooks-Gunn, 2002). Others have found that low self-esteem in adolescent mothers relates to parenting that is lacking in empathic awareness, which in turn relates to developmental delays in children (McKenry et al., 1991). At a distal level, adolescent mothers often come from disadvantaged economic backgrounds, which can also influence how mothers parent their children. Adolescent motherhood is frequently associated with risk factors such as poverty, single parenthood, and lower levels of parental education (Hans & Thullen, 2009; Moore & Brooks-Gunn, 2002). One study found that in an ethnically diverse sample of mothers, those who held childrearing attitudes that were both directive and insensitive were from lower income
communities, while mothers who reported childrearing attitudes that were either democratic or strict were from higher income communities (Chaudhuri, Easterbrooks, & Davis, 2009). A possible contributing factor could be lack of education, as mothers from higher SES families score higher than low SES mothers on measures of knowledge of infant development (Bornstein et al., 2010).

In addition to developmental age and environmental context, parenting behaviors can differ as a function of cultural background, such that mothers from different cultural groups may differ from others on important variables that affect the way they parent their children (Chaudhuri et al., 2009). Individuals have different ideals and goals for their children as they grow, and they transmit their values to their children by using parenting behaviors and strategies thought to aid in the development of these values in their children (Harkness & Super, 1996; Trommsdorff, Cole, & Heikamp, 2012). In the United States, the ways in which ethnic minority parents adapt to unique environmental challenges is reflected in their parenting. For example, maternal experiences with cultural identity, poverty, racism, migration, and acculturation can shape their interactions with their children (Garcia-Coll & Pachter, 2002). Women of Latin ethnicity may have specific goals for their children that reflect an interdependent and communal perspective, as well as a fostering of Latino values of familismo, familial closeness, and respeto, adherence to authority (Guilamo-Ramos et al., 2007). These socialization goals are transmitted to children through mother-child interactions. Traditional Latina mothers are more likely to parent in a way that is directive and physically intervening than mothers who have more individualistic values. Studies assessing mothers’ childrearing attitudes found that Latin American mothers were more likely to be directive and controlling than European American mothers, who were more likely to
be democratic (Chaudhuri et al., 2009; Grau, Azmitia, & Quattlebaum, 2009; Halgunseth, Ispa, & Rudy, 2006).

Additionally, differences in parenting styles have been found within groups of Latina mothers with varying levels of acculturation to American culture. Acculturation refers to the adoption of the customs, practices, and values of the culture of residence as opposed to the culture of origin, while enculturation reflects a retaining of one’s culture of origin. Many studies have used language (English versus Spanish-speaking) as a measure of acculturation/enculturation and have found that Latina mothers who primarily speak Spanish tend to exhibit parenting that is stricter and more controlling than English-speaking Latina mothers (Buriel, 1993; Gonzales-Ramos, Zayas, & Cohen, 1998). Despite their notable emphasis on controlling parenting, a style that is typically associated with poorer outcomes for children in European American samples, behaviors of controlling Latina mothers tend not to be associated with negative child outcomes, especially within less acculturated families (Grau et al., 2009; Halgunseth, Ispa, & Rudy, 2006). Other studies have found that for both mothers of Puerto Rican and Dominican heritage, high control and more physical intervention was related to security of attachment, an association that does not exist in European American samples (Carlson & Harwood, 2003; Fracasso, Busch, & Fisher, 1994). A possible reason for these associations is that for Latina mothers, high levels of control can also be associated with high levels of warmth in parenting, which is not typically the case for European American mothers (Guilamo-Ramos et al., 2007). However, researchers have not yet reached a conclusion on which combinations of parenting techniques are most optimal for positive child development within different cultures. Specifically, there is little empirical evidence to indicate whether these associations differ due to protective factors of a Latino cultural context or risk factors of American culture.
The Current Study

For this study, I examined both maternal and child behaviors within a compliance-eliciting toy clean-up task following a time of free play between mother and child. I investigated the relations between specific maternal and child behaviors. Given that committed compliance, as opposed to situational, represents a more internalized form of compliance demonstrating consistent correlates to positive outcomes, I focused on this specific form of compliance to allow for better generalizations of observed child behavior to other contexts and outcomes. Additionally, because committed forms of compliance become more consistent between two and two-and-a-half years, this measurement provided the best marker for a positive developmental trajectory for our 24-month-old sample. Similarly, defiance represents a clear demonstration of poorly regulated behavior for two-year-old children and signifies a pervasive pattern of negative child behavior.

Overall, the aim of this study was to get a picture of how behavioral associations between Latina adolescent mothers and their children exhibit both parallels to and delineation from those seen in samples of European American, adult mothers and their children. In testing two dimensions of cultural orientation, I sought to examine whether the retention of traditional Latino culture serves as a protective factor for child outcomes and whether the process of ‘becoming Americanized’ serves as a risk. I examined relations between maternal gentle guidance and child compliance. I expected to see a positive association between maternal gentle guidance behaviors and child committed compliance, similar to findings in samples of European American mothers. I expected this effect to hold across differences in cultural orientation, and in order to confirm this I tested interactions between gentle guidance and both enculturation and acculturation.

Considering that some associations may vary by culture, I examined relations between
maternal control and child defiance as moderated by culture and expected to see a different association between high levels of maternal control and child defiance than has been shown in previous research in European American, middle-class samples. Based on cultural values and different parenting behaviors of traditional Latina mothers, I expected that the relation between control and defiance would be moderated by enculturation or acculturation. Currently, there is little empirical evidence to suggest which of the two orientations would show the strongest moderation. The results were expected to be indicative of specific aspects of cultural orientation that may be driving the predicted effect, whether American culture, Latino culture, or both.

In order to better assess relations between maternal and child compliance, I tested for potential control variables of constructs known to be associated with parenting, child outcomes, and adolescent risk. In order to better isolate the influence of maternal behavior on child compliance and defiance, I controlled for child reactivity. Additionally, I examined potential control variables accounting for contextual risk of life stressors (e.g., moving, losing a loved one) and strain experienced from financial difficulties. Finally, I considered control variables assessing maternal characteristics of age and level of education, as well as child characteristics of age and gender.
Method

Participants

The individuals in this study (N=146) included mother-child dyads from a larger sample of 170, who participated in a study on Latina adolescent mothers and their children. Home observation and questionnaire data were collected at two waves, when the children were 18 and 24 months. From the 170 mothers who participated at Wave 1, 149 returned for Wave 2. There were no significant differences in the socio-demographic and cultural orientation variables based on attrition status. Of the 149 returning for Wave 2, one mother did not provide reliable self-report data and was excluded from the study sample. Two of the remaining 148 mother-child dyads did not have available video for the task coded in the study due to equipment malfunction. Therefore, the total number of participants for this study is 146, representing 86% of the original sample. The clean-up task observations and self-report data used in this study were collected at the second wave, and observational data used to code child reactivity was collected at Wave 1.

For the 146 mother-child dyads included in this study at wave 2, during which target variables were collected and coded, mean maternal age was 20.02 years (SD= 1.37), and 17.93 years (SD= 1.35) at the time of the target child’s birth. Mothers completed schooling up to the 9th grade (23.3%) or 10th to 12th grade (39.8%), 22.6% received a high school diploma, and 14.4% had completed some post-secondary education. Of those in the study, 23.3% were attending school at the time of data collection, and 41.1% were employed. The sample included primarily
mothers of Puerto Rican origin (81.5%), some reporting Mexican origin (7.5%), and the remaining 11% reporting national origins of Colombia, Dominican Republic, Guatemala, Peru, or El Salvador. Many mothers were either first generation (45.9%) or second generation (40.4%) immigrants, and 13.7% were third, fourth, or fifth generation. Most mothers (88.4%) reported receiving some kind of government assistance. At wave 2, children had a mean age of 24.6 months (SD= .09). Of the included children, 47.3% were female, and 87% of children were their mother’s first or only child.

Procedure

The study received Institutional Review Board approval. A full-time, bicultural research assistant managed recruitment. Participants were recruited from neighborhoods in a Midwestern city, both face-to-face in community clinics (78.2% of original sample) and by referrals from friends or relatives (15.3%) or from professionals (6.5%). Mothers were determined to be eligible for the study if they were 19-years-old or younger at the time of birth of the target child, and they were enrolled if their child was currently 20-months-old or younger and was not born premature or with any major physical or medical problems.

A total of 253 contacted adolescent mothers were determined to be eligible; 12 of these refused to be considered for the study (4.7%). The remaining mothers were contacted when the target child was 18-months-old. Of these remaining eligible participants, 71 either moved before their child reached the age of eligibility (18.5%), could not be located (28%), refused to participate (8.5%), or had difficulties with scheduling during the time when the target child was age eligible for participation (45%). After recruitment, 170 (70.5%) mothers participated in data collection at Wave 1, and 149 remained for Wave 2 collection; one participant’s self-reported data was eliminated due to unreliability, so full Wave 2 data were available for 148 mothers. For
this particular study, two additional participants were not included due to equipment
malfunctions during the observational task of interest, so total N=146.

Two bilingual, female graduate research assistants visited the mothers and children in
their homes, where they administered questionnaires and instructed the mother-child dyads
through a series of interactions, which were video recorded for later coding. Informed consent
was obtained from each participant or from a parent or guardian if the mother was under the age
of 18. All home visits were conducted and assessments were given in the mother’s preferred
language (71.2% English, 28.8% Spanish). At the end of each visit the mothers were
compensated $70 for their time, and children were each given a small toy to keep.

Measures

Demographics. Mothers were asked to self-report demographic information by computer-
assisted, fixed-format questions. Mothers provided information on age, ethnic origin, education
level and status, employment status, and child age and parity, as well as other demographic
variables not examined in this study.

Economic strain. The Economic Strain Questionnaire (ESQ; Pearlin, Menaghan,
Lieberman, & Mullan, 1981) measured financial difficulty by maternal ratings of seven items,
answering from 1 (‘Never’) to 5 (‘Always’) to questions inquiring whether the household can
afford certain things that they may need (furniture, transportation, food, etc.). Responses to the
items were re-coded and combined to create a mean score, with higher scores indicating more
reported economic strain. The questionnaire demonstrated adequate reliability (α = .81 whole
sample, α = .82 English administration, α = .82 Spanish administration).

Life stress. The Life Events Survey (Sarason, Johnson, & Siegel, 1978), adapted for
young minority mothers (Rhodes, Ebert, & Fisher, 1992), was utilized to assess for stressful
events occurring between Wave 1 and Wave 2 home visits. If participants had experienced a particular event, they responded to items on a 1-5 scale as to how positive or negative the event had been for them. Life stress was calculated by adding together those events mothers regarded as negative, with more weight given to those they indicated as ‘extremely negative.’

Acculturation/Enculturation. Mothers’ acquisition of American culture and retention of traditional Latino culture were measured with the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuéllar, Arnold, & Maldonado, 1995). The measure included both Latino (LOS; 17 items; enculturation) and Anglo (AOS; 13 items; acculturation) Orientation Subscales. This scale has been previously used with Latinos of different countries of origin (Arredondo, Elder, Ayala, Campell, Baquero, & Duerksen, 2004). Mothers responded to statements on a 5-point Likert scale, which ranged from 1 (not at all) to 5 (extremely often or almost always); these statements referred to different cultural activities, language use, social preferences, and ethnic identity. The scales demonstrated adequate reliability within this study (LOS: α = .86 whole sample, α = .85 English administration, α = .84 Spanish administration; AOS: α = .93 whole sample, α = 0.79 English administration, α = 0.89 Spanish administration).

Child reactivity. Child behavior during the administration of a cognitive assessment was video recorded and later coded using the Adaptation to Change in Test Materials (ICC = .73) and Frustration with Inability to Complete Tasks (ICC = .85) subscales of the Bayley Behavior Record Scales (BSID-II). These two scales were correlated (r = .49, p < .001), and they were combined to create a composite of child reactivity reflecting lower adaptability and higher frustration, together representing higher reactivity to change.

Coding of maternal and child behaviors. A frequently used coding scale published by Kochanska & Aksan (1995) was utilized to measure child compliance behaviors and maternal
guidance/control behaviors. Scales were coded in the context of a clean-up task following procedures described by Kochanska and Aksan.

The clean-up task occurred after ten minutes of time during which mother and child played freely with a given set of toys. At the end of the 10 minutes, a research assistant brought in a plastic bin and asked the mother to please have her child pick up the toys. After setting the camera to record, the research assistant left the dyad alone for five minutes, or until the toys were cleaned up and the mother declared to her child that they were finished picking up the toys. During this time, each mother was expected to use whichever strategies she normally would to have her child clean up.

Three undergraduate research assistants were trained on the coding system until they reached adequate levels of reliability in coding 30-second segments from the five-minute task. All three had some level of proficiency in the Spanish language, and English translations of the videotaped tasks were provided for each case in which the mother spoke primarily Spanish. Undergraduate students who were either a native Spanish speaker or an advanced student from a translation program conducted these translations.

Maternal Control. For each 30-second segment, one of five codes was given that best described the overall behavior and clean-up facilitation strategy of the mother during the segment. These codes included: No Interaction (mother was pre-occupied with something else, little attention paid to child or task), Social Exchange (mother interacted with the child but did not direct the clean-up), Gentle Guidance (mother used games, songs, collaborative statements and questions, or praise and encouragement to facilitate the child cleaning up), Control (mother used commands, directives, or bribes to facilitate the clean-up), Forceful, Negative Control (mother used significant negative affect or threatening tone or gestures to facilitate the clean-up).
Child Compliance. For each 30-second segment, one of six codes was given that best described the behaviors of the child during the segment. These codes included: Time Out (child was not cleaning or was playing during an absence of maternal directives), Committed Compliance (child eagerly cleaned up toys on his/her own or excitedly received helped from mother in doing so), Situational Compliance (child cleaned but was hesitant and required frequent prompts from mother), Passive Noncompliance (child primarily ignored maternal directives to clean), Overt Resistance (child verbally expressed opposition in an affectively neutral way), Defiance (child displayed anger, frustration, or other emotionally unregulated behaviors).

Reliability. Of the 146 cases, 25% were double-coded and checked for reliability of each 30-second segment. Final weighted Kappas (Cohen, 1968) were .81 for the child behaviors scale and .74 for the maternal behaviors scale.

Data preparation. The variables for both maternal and child behaviors were computed in the same manner. The number of codable segments was determined by any 30-second increment during which the task continued; therefore, if the toys were cleaned up early and the mother determined the task to be finished, codable segments could total less than ten. Additionally, mothers could receive a code of Time Out, a period during which the mother did not engage the child in task-related behaviors. For this reason, the child behavior variables were divided by fewer codable segments in the event that any 30-second interval was coded as Time Out. For each behavioral category (i.e., for mothers, gentle guidance, control, etc., and for children, committed compliance, defiance, etc.) the number of times a segment was coded as such was added and then divided by the number of segments determined to be codable. The variables for both maternal and child behaviors represent a proportion of time during the task in which that
behavior was the prominent behavior observed. Sample means and standard deviations for the behavioral variables are displayed in Table 1.

Table 1. Correlations among main and control variables

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<td>2. Gentle guidance</td>
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*p<.10; *p<.05; **p<.01; ***p<.001.
Results

Overview of Analyses

Preliminary analyses included examining whether any significant differences existed between mothers of Puerto Rican origin and mothers from other nations of origin. Next, potential control variables were selected based on their relevance in the literature as being related to the outcomes of interest, child committed compliance and defiance behaviors. I examined correlations between main study variables and potential control variables. Variables showing significant correlations were included in the full linear regression models testing the main hypotheses, so that all other relations being considered, I could assess the strength of the predicted relations between maternal and child behaviors. Both hypotheses were tested with hierarchical linear regression models, wherein relevant control variables were entered first, followed by maternal behaviors and enculturation and acculturation, and finally the interactions between maternal behaviors and enculturation and acculturation, which were tested separately. Main predictor variables of maternal gentle guidance and control, as well as enculturation and acculturation, were centered to the mean. The first two models examined the association between maternal gentle guidance and child committed compliance, and the second two models examined the association between maternal control and child defiance. Although cultural differences were only predicted for control and defiance, all full models included interactions between the maternal behavior of interest and each of the cultural orientation subscales. Thus, four separate
hierarchical linear regression models were tested. There was no indication of multicollinearity for any of the tested models.

**Preliminary Analyses**

As a majority of the sample included mothers of Puerto Rican origin, I first ran independent samples t-tests to determine whether these mother-child dyads differed from those of other countries of origin on any of the main study variables: maternal gentle guidance and control, child committed compliance and defiance, and maternal reported enculturation and acculturation. No significant differences emerged for any of the maternal or child behavior variables (all p’s > .46). Mothers of Puerto Rican origin scored higher on the measure of acculturation than mothers from other countries of origin (t(30.26)= -3.94, p< .001), as would be expected based on the Commonwealth status of Puerto Rico. Mothers did not significantly differ on enculturation scores (p=.23). Based on these findings, it was determined most appropriate to retain all participants as one sample.

**Descriptive information**

Means and standards deviations for all variables are displayed in Table 1, as well as correlations between all main study variables and potential control variables. A significant association was observed for the predicted relation of maternal gentle guidance and child committed compliance (r=.51, p< .001), although the association between maternal control and child defiance was not statistically significant (r=.12). The association between child defiance and acculturation was significant (r=.19, p=.02), and the association between child defiance and enculturation was marginally significant (r= -.16, p= 0.051). Also, both the maternal behaviors (gentle guidance and control) and the child behaviors (committed compliance and defiance) were found to be highly negatively correlated with each other (r= -.73, p< .001; r= -.36, p< .001). The
cultural orientation scales of enculturation and acculturation were significantly and negatively correlated ($r = -.35, p < .001$); this correlation was moderate in strength, supporting the two separate scales as distinct measures.

**Selection of Control Variables**

Eight variables reflecting maternal and child characteristics and environmental factors that in past literature have been related to child self-regulation outcomes were examined as control variables: Wave 2 maternal age, maternal level of education, child age, child gender, economic strain, and life stress, as well as Wave 1 observed child reactivity. Of these, two significant associations emerged: mothers who reported more life stress had children who demonstrated more defiance, ($r = .26, p = .001$), and children with higher reactivity demonstrated more defiance, ($r = .27, p = .001$). These variables were included in the full hierarchical linear regression models predicting child defiance from maternal control.

**Hypothesis 1: Gentle Guidance and Committed Compliance**

The association between maternal gentle guidance and child committed compliance was tested by linear regression analysis, including separate models testing the interactions between gentle guidance and enculturation (Table 2) and acculturation (Table 3). As predicted, maternal gentle guidance behaviors were associated with greater child committed compliance behaviors (enculturation equation: $\beta = .55, p < .001$; acculturation equation: $\beta = .54, p < .001$). Additionally, there was a main effect of enculturation predicting higher levels of child compliance in both models ($\beta = .19, p = .01$). Interactions between maternal gentle guidance and both enculturation and acculturation were also tested as part of the full models. No differences were found in the strength of the maternal and child behavior associations by level of acculturation, and a marginal effect was found for the interaction between gentle guidance and enculturation ($\beta = .13, p = .06$).
Simple slope analyses were run and separate regression lines were plotted for enculturation scores of -1 SD, 0 SD, and +1 SD; this revealed that all regression lines were significantly different from zero, although the prediction seemed slightly stronger at high levels of enculturation. Thus, gentle guidance predicted committed compliance across all levels of cultural orientation.

Table 2. **Hierarchical regression predicting child committed compliance from maternal gentle guidance, moderated by enculturation**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Committed Compliance</th>
<th>R²Δ</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td>.29***</td>
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<td>Gentle Guidance</td>
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<td>.53***</td>
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</tr>
<tr>
<td>GG x Enc.</td>
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<td>.13†</td>
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</tr>
</tbody>
</table>

Note. Enc = Enculturation; †p<.10; *p <.05; **p < .01; ***p < .001

Table 3. **Hierarchical regression predicting child committed compliance from maternal gentle guidance, moderated by acculturation**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Committed Compliance</th>
<th>R²Δ</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
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<td>Step 1</td>
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</tbody>
</table>

Note. Acc = Acculturation; †p<.10; *p <.05; **p < .01; ***p < .001
Hypothesis 2: Control and Defiance Moderated by Acculturation

The predictions of enculturation (Table 4) and acculturation (Table 5) moderating the association between maternal control and child defiance were tested by hierarchical linear regression analyses. Control variables of life stress ($\beta = .26$, $p = .001$) and child reactivity ($\beta = .27$, $p = .001$) were entered in step 1, both significantly predicting child defiance. In step 2, main study variables of maternal control, acculturation, and enculturation were added, with maternal control demonstrating a marginal association with child defiance ($\beta = .14$, $p = .08$). The interactions between maternal control and both enculturation and acculturation were added in step 3 of separate models.

The interaction between maternal control and enculturation was not significant. The interaction between maternal control and acculturation predicting child defiance was found to be significant ($\beta = .16$, $p = .05$). To further explain the interaction, separate regression lines were plotted for acculturation scores of -1 SD, 0 SD, and +1 SD (Figure 1). For mothers reporting high acculturation scores (+1 SD from the mean score), maternal control significantly predicted child defiance ($t(142) = 4.28$, $p < .001$). The association between maternal control and child defiance was not significant for mothers reporting acculturation scores at the sample mean ($p = .16$) or at -1 SD from the mean ($p = .54$). Thus, maternal control significantly predicted child defiance only for mothers reporting high levels of acculturation.
Table 4. *Hierarchical regression predicting child defiance from maternal control, moderated by enculturation*

<table>
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<th>Predictors</th>
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Note. Enc. = Enculturation †p<.10; *p <.05; **p < .01; ***p < .001

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Table 5. *Hierarchical regression predicting child defiance from maternal control, moderated by acculturation*

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Note. Acc. = Acculturation †p<.10; *p <.05; **p < .01; ***p < .001
Figure 1. Interaction between maternal control and acculturation predicting child defiance
**Discussion**

The results of this study provide a picture of some mother-child behavioral associations that are both similar to patterns seen in previous research involving majority populations and unique to Latina adolescent mothers. As predicted, and consistent with previous research on European American, adult mothers, those who more frequently used gentle guidance had children who demonstrated greater committed compliance during a clean-up task. Additionally, when controlling for life stress and child reactivity, both of which were highly related to defiance, the association between maternal control and child defiance was moderated by mothers’ reported acculturation level, such that mothers’ more frequent use of control resulted in their children displaying significant amounts of defiant behaviors only for those mothers who endorsed high levels of mainstream American orientation. At low levels of acculturation, mothers’ more frequent use of control was not related to their children’s defiance. These associations did not differ by reported levels of enculturation.

For the model examining the influence of gentle guidance on child compliance, I predicted that more frequent demonstration of gentle guidance behaviors from mothers would be related to more committed compliance from children, mirroring findings from different demographic samples (Braungart-Rieker et al., 1997; Kochanska & Aksan, 1995). Cheah and colleagues (Cheah, Leung, Tahseen, & Schultz, 2009) also found that Chinese immigrant mothers’ endorsement of authoritative parenting positively related to children’s behavioral regulation. Together, these findings suggest that maternal behaviors that focus on mother-child
cooperation, praise, and autonomy granting may be fairly universal in their associations with positive child outcomes despite variations in cultural and contextual factors.

In addition, a main effect of enculturation was observed in the models examining gentle guidance and committed compliance. Children whose mothers endorsed more Latino cultural values and practices demonstrated more committed compliance behaviors than their peers with less enculturated mothers. This finding represents the direct effect of enculturation on child committed compliance, as enculturation and maternal gentle guidance were found to be unrelated. Additionally, there was a trend for mothers reporting different levels of enculturation to demonstrate a positive and significant relation between gentle guidance and committed compliance. However, the effect was slightly stronger for those reporting high levels of enculturation. It is possible that this observed relation between enculturation and committed compliance could be accounted for by other contextual factors or parenting behaviors not measured within this study. For instance, more traditional Latina mothers who highly value family involvement may be receiving more support, thus parenting in an overall more positive context than less enculturated mothers. Additionally, they may be utilizing additional parenting strategies that are contributing to their children’s positive outcomes and increased committed compliance. Although beyond the scope of the current study, this effect should be further analyzed by variations in both parenting behaviors and contextual factors.

I also predicted that the positive association between maternal control and child defiance observed in prior research on European American, middle-class families would be significant for those mothers reporting high levels of acculturation to American culture and/or low levels of enculturation of Latino culture; for this prediction, only the acculturation interaction was found to be significant. I found that mothers’ endorsement of American culture interacted with their
observed control behaviors, resulting in differential associations with child defiance behaviors. Specifically, mothers who were most highly acculturated and used a high frequency of control behaviors were likely to have children who displayed higher amounts of defiant behaviors; this association was not significant for mothers who reported medium or low levels of acculturation. In other words, for those who reported adopting more American values and practices the relations between their control behaviors and their children’s defiant behaviors were similar to those seen with European American mothers and their children (Braungart-Rieker et al., 1997; Crockenberg & Litman, 1990; Rothbaum & Crockenberg, 1995). This same differentiation was not observed when variability in enculturation was examined.

Importantly, this moderation was found to be significant while still accounting for child reactivity and life stress, variables with known relations to child outcomes. Higher child reactivity related to increased child defiance, indicating that children with difficult temperaments may have more difficulty developing self-regulation skills. This effect is likely, in some ways, confounded with the behaviors difficult children elicit from caregivers, but it should not be discounted as a unique contributor to regulatory problems (Kochanska & Kim, 2013; Eisenberg, Guthrie, Fabes, Shepard, Losoya et al., 2000). Furthermore, this study exhibited this effect, which has been largely looked at in middle-class, European American families, in a sample of Latina adolescent mothers, a group that has been scarcely examined in previous literature. Higher reported life stress was also related to increased child defiance, exhibiting the predicted influence of negative environmental context on child functioning. This effect may also be partially mediated by maternal behaviors unexamined in this study, with stressful events causing strain to mothers that is reflected in their behaviors with their children; however, life stress may also produce a direct effect on child functioning in that lack of environmental stability (i.e.,
frequent moving, loss of resources, changes in caregivers) may contribute to difficulties in the development of self-regulation (Li-Grining, 2007). Including these two variables in the full model allowed for better isolation of the effect of maternal control behaviors on child defiance behaviors. This result builds upon prior literature, demonstrating that although child characteristics and contextual factors affect child behaviors, maternal control has a unique influence on child defiance.

These findings represent important variations in patterns of maternal behaviors and their associations to child behaviors. Consistent with similar lines of research, these results confirm that maternal behaviors known to have negative effects on child outcomes in some cultural contexts do not always produce similar effects in other cultures (Ispa et al., 2004; Brody & Flor, 1998). While higher levels of maternal control and directiveness have known relations to poor child outcomes in European American samples, the same effect is not consistently observed in Latino culture. Others have demonstrated that high levels of control and physical intervention are positively related to desirable outcomes like attachment security and have been unrelated to conduct problems (Grau et al., 2009; Carlson & Harwood, 2003; Fracasso, Busch, & Fisher, 1994; Gonzales, Pitts, Hill, & Roosa, 2000; Ispa et al, 2004). For example, Puerto Rican mothers who demonstrated high levels of control had children who displayed secure attachment at 12-months, whereas the infants of Anglo mothers who used high control showed more insecure avoidant attachment (Carlson & Harwood, 2003).

While these and other associations have been shown to differ by culture, the exact reason for this effect is less clear. Specifically for this study, is it important to consider what aspects of acculturation may be driving this effect. Some have suggested that the process of acculturation, in which individuals may become conflicted between different norms and expectations, produces
a unique kind of stress that may negatively enhance relations between parenting and child outcomes (Bornstein & Bohr, 2011; Li-Grining, 2012). It is also possible that variations in other behaviors mothers used alongside control may explain the culturally meaningful differences. For instance, high control paired with warmth and positive affect may be simply directive and may not prompt defiant behaviors. On the other hand, high levels of control alongside negative affect driven by impatience and anger may be employed due to unrealistic expectations for child development. In this way, the control behaviors of mothers who are more ‘Americanized’ may be driven by an approach that is related more to individualistic practices or by impatience and anger than the directive parenting techniques of traditional Latina mothers. Although cultural differences in maternal behaviors and child outcomes have been observed in samples of adult Latina mothers, this effect may be especially strong for adolescent mothers who lack knowledge of parenting practices. The results of this study suggest that for Latina adolescent mothers, being more ‘Americanized’ may put their children at higher risk for behavioral problems when their parenting behaviors reflect higher levels of control (a parenting technique associated with poor child outcomes in American samples). This statement warrants further investigation of additional contextual factors that may be culturally driven, such as family child care involvement and social support. In the ways described, this study uniquely contributes to this area of research by demonstrating this differential effect of maternal control to child defiance in the context of a goal-directed, compliance task, in which Latina mothers and children have been largely ignored.

Given that many United States cultural and ethnic minority groups are underrepresented in psychological and developmental research, these results further highlight the necessity for including these groups in research samples. Certainly variations exist amongst other specific
cultural variables (e.g., SES, belief systems); however, systematic differences presented by way of cultural and ethnic identity cannot be ignored.

Many treatment programs that teach parenting skills and techniques to decrease externalizing problem behaviors in children have been based on research involving primarily adult, European American samples. Subsequently, this group is more likely to utilize and complete treatment than ethnic and racial minority groups (Ortiz & Del Vecchio, 2013). Although these treatments employ techniques that are thought to be equally effective across cultures, a lack of cultural sensitivity and lack of understanding of variations in effective parenting practices in cultural contexts may be contributing to a decreased perception of helpfulness from ethnic minorities (Bridges, Andrews, & Deen, 2013; Ward, Wiltshire, Detry, and Brown, 2013; United States Department of Health and Human Services, 2001). In this way, it is important to consider the results from this study, amongst many others, in the development of and training for such programs surrounding effective parenting for reducing child problem behaviors.

**Limitations and Future Directions**

The current study has several limitations to be noted. First of all, the behaviors in this study were coded in the same task and at the same time point, so behaviors may have been affected by momentary interactions rather than pervasive behavioral patterns. In order to account for this, we chose to focus on the child behaviors that have been used in the literature as representative of behavioral styles: an internalized, highly regulated form of compliance (Kochanska, Coy, & Murray, 2001) and a reactive, dysregulated form of noncompliance. Studies have found measures of child committed compliance to be stable over early childhood (Spinrad, Eisenberg, Silva, Eggum, & Reiser, et al., 2012). Others have noted distinct developmental trajectories for children high in committed compliance versus situational compliance, such that
children higher in committed compliance demonstrated higher quality of relationship, orientation to mother during other tasks, and internalization, whereas these associations did not exist for children high in situational compliance (Kochanska, Tjebkes, & Forman, 1998; Kochanska & Aksan, 1995). In a similar way, measures of unskilled forms of noncompliance (i.e., dysregulated defiance), were found to be consistently related to later problem behaviors (Kuczynski & Kochanska, 1990). For this reason, variables that are more highly influenced by momentary behaviors and interactions (situational compliance and passive noncompliance) were not analyzed in the current study.

Additionally, because participants were being video-taped, it is possible that the mothers may have behaved in ways that were less reflective of their everyday behaviors, avoiding extremes of harsh discipline or physical control. However, most other studies have recorded similar tasks in this way, by video recording observations for later review and behavioral coding. The current study possesses additional strengths in that the task was observed within the home of the mother and child rather than in an unfamiliar laboratory setting, a strategy that is infrequently used but increases ecological validity of the assessment (Karreman et al., 2006). Additionally, observational methods are encouraged but have been less frequently used in studying the development of self-regulation in young Latino children (Li-Grining, 2012). The clean-up task for the current study was also conducted after several other observational tasks, allowing time for mother and child to warm up with each other and gain familiarity with the experimenters and the equipment.

The sample for the current study may present additional limitations. While some mothers did report low levels of acculturation, few received low scores on the enculturation scale; thus, the low variability the enculturation scale may have influenced the results. For instance, the
observed cultural effects may exhibit more strength in samples with more cultural variability, in which larger proportions of the sample identify as primarily Latino or primarily American. In addition, enculturation may have served as a moderator between maternal control and child defiance, such that the same effect may have been observed at low levels of enculturation as with high levels of acculturation. Future work should consider a larger range of cultural variability in samples to further investigate the influences of both Latino and American culture. Replication of this study with an adult sample would also advance the literature; it is possible that these same effects may not be present with more mature and experienced Latina mothers, who may employ additional parenting techniques along with high levels of control that are beneficial to child development within their cultural context (Tamis-LeMonda, Song, Leavell, Kahana-Kalman, & Yoshikawa, 2012).

The coding system used to quantify maternal behaviors may have not been sufficient to capture some of the variability present within the observed maternal control behaviors. For instance, maternal use of directive and non-collaborative verbalizations were coded as control, regardless of affective quality. However, these distinctions may be related to different styles of parenting, such as a style that is both directive and warm versus a style that is primarily controlling and lacking in sensitivity. Maternal use of positive affect, sensitivity, or warmth paired with different amounts of control may further explain the cultural effects observed in this study. Future research should seek to address this potential variability by including measures of coded maternal affect alongside control and guidance behaviors. Despite noted suggestions for enhancing future coding, the use of the current coding system was important in providing comparisons with this unique sample to previous samples of European American, adult mothers, by using the same coding scale (Kochanska & Aksan, 1995). Although it is possible that further
variability exists within maternal control codes, the current study was able to identify important associations with this frequently used system.

Finally, because the data utilized in this study was cross-sectional, causality and directionality cannot be assumed. Future work should also seek to examine these associations longitudinally, to determine change in maternal behaviors over time and how these changes affect both child behaviors and other child outcomes. With longitudinal assessment as a consideration, future work should also focus on linking early maternal behaviors and mother-child behavioral associations directly to later externalizing behaviors and psychopathology of the children in order to pinpoint optimal behaviors and time points for behavioral interventions. This implication is specifically important for adolescent mothers, who as a group lack parenting knowledge and experience (McKenry, Kotch, & Browne, 1991; Bornstein et al., 2010).

Additionally, longitudinal work should employ repeated assessment of acculturation and enculturation, to examine how these dimensions change over time and work as a process that may differentially influence maternal behaviors and consequently child outcomes.

This study succeeded in its overall goal to examine associations between mother and child behaviors in a compliance task, producing results that highlight both similarities and differences in patterns of associations across different demographic samples. Most notably, the results continue to support the notion that effective parenting looks different across and within cultural contexts. The study suggests that future clinicians and researchers continue to strive for increased cultural sensitivity and understanding of unique groups of individuals.
References


Appendix A. Consent Forms

METROHEALTH MEDICAL CENTER

Human Investigation Consent Form

Project Title: Latina Adolescent Parenting Project

Investigator: Dr. Josefina Grau, Kent State University

Dear Participants and Parents:

Kent State University in collaboration with MetroHealth Medical Center is conducting a study of the factors influencing the well being of young Latina mothers and their children. We would like you to take part in this study. If you decide to participate, you will be asked to complete two home visits, one in the near future when your child is approximately 1 and ½ years old, and the other, six months later. The home visits will be scheduled at a time that is convenient to you and will be conducted by two female researchers. During each of the visits, one of the researchers will videotape your child while he/she is administered a developmental test. The researcher will then videotape you while you play with and teach your child. Finally, you will be interviewed individually about your own functioning (e.g., social and personal adjustment, relationships with family members) and your child’s behavior. The visit will take approximately 2 and ½ hours to complete. For your participation, you will receive $70.00, a copy of the videotape, and a small toy for your child at the end of each of the home visits.

All the information gathered through this study will remain strictly confidential within the limits of the law. This means that we are required by law to break confidentiality and report to local authorities if we find evidence of child (including you, if you are less than 18 years old) or elder abuse, or if we learn that you have suicidal or homicidal feelings. To maintain confidentiality, the information you provide to us will be identified only by a participant number (not your name) and will be examined only by Dr. Grau and qualified members of her research team at Kent State University. We will schedule the home visit at a time that is convenient to you, so that you can be videotaped and interviewed privately. Also, you will have the choice of responding to interview questions either aloud or by pointing to response options that will be printed in response cards. However, if you have confidentiality concerns because of the presence of a family member or someone else in your home while you are being videotaped or interviewed, we can interrupt the procedures or reschedule the home visit.

Personnel at MetroHealth Medical Center will not have access to the information you provide us. Similarly, Dr. Grau and her research team will not have access to medical or any other information that MetroHealth Medical Center may have about you. You may experience some
discomfort when asked to answer personal questions, but our experience is that this discomfort is, at most, slight and short lived. If you experience more than mild discomfort, we encourage you to contact the Center for Behavioral Health, Child and Adolescent Services at MetroHealth Medical Center (216 - 778-3745). Alternatively, if you prefer, the interviewer can assist you with the referral.

You are under no obligation to complete this study even if you sign this consent form. You may skip questions or discontinue your participation at any time. You will be presented with another consent form for the second home visit. Participation is completely voluntary and refusing to participate will not affect in any way the services you receive at MetroHealth Medical Center.

If you have any questions regarding the study, please feel free to call Dr. Josefina Grau at (330) 672 3106 or (216) 212-9188. This project has been approved by Kent State University and MetroHealth Medical Center. If you have any questions about Kent State University's rules for research, please call Dr. John L. West at (330) 672-3012. If you have any questions about your rights as a research participant, contact the MetroHealth Medical Center’s Institutional Review Board (which is a group of people who review the research to protect your rights) at (216) 778-2077.

By signing this form I acknowledge that I have read and understand this form, and have had any questions regarding this study satisfactorily answered, and I am voluntarily consenting to participate in this study.

____________________________
Participant's signature Date

Parent/Guardian Consent: I give my daughter permission to participate in this study.

____________________________
Parent or Guardian's Signature Date

____________________________
Researcher Signature Date
(Person obtaining consent)

THIS SIDE — IRB OFFICE USE ONLY

Latina Adolescent Parenting Project – Consent Form IRB #: IRB06-00047/CR00002903

45
HUMAN INVESTIGATION CONSENT FORM

The MetroHealth System
ATTACHMENT A
2500 MetroHealth Drive, Cleveland, Ohio 44109-1998

CONSENT FOR PHOTOGRAPHY,
AUDIO OR VIDEOTAPING (medical)

Request Type: □ Photography □ Audiotape □ Videotape □ Other: ____________

Photographs of the subjects(s) will be: □ Clothed □ Partially clothed □ Undressed

Permission is hereby given to photograph, audiotape, or videotape the following named
person(s) ____________________________, with the understanding that such
photographs, audiotapes or videotapes may be used for the following stated purposes:

□ Medical Necessity/Diagnostic Purposes: Explain: ____________________________

□ Education: Explain intended purpose: ____________________________

□ Publication in medical and/or scientific journals: ____________________________

[ ] Inclusion in Research Paper(s): Latina Adolescent Parenting Project

[ ] Other: ____________________________

Please Specify

The department requesting photos, videos, etc will be responsible for proper storage of the
media as established by The MetroHealth System medical record retention requirements. Photographs, etc are not to be placed in the patient medical record. The department requesting
photographs, video, etc is ____________________:

Description of media requested: Videotaping of 1) mother while she teaches and plays with her
child; 2) child while he/she is administered a developmental test.

Purpose of Request (describe how photographs, audiovisual or videotaped will be used):
Learn about factors influencing the well being of young Latina mothers and their children.

I, the undersigned, understand that this authorization is valid for a period of 60 days from the date of
completion of this authorization, and may be revoked by me or my legal representative in writing at any time.
However, I understand that if I do so, it will not have any effect on any actions that were taken before the
revocation was received. I understand that for the revocation to be effective, I must do so in writing and send it
to department who originally requested the photographs, etc. The revocation notices will be filed in the patient
medical record after review by the originating department.

I further understand that once the media has been released, re-disclosure of my information by the recipient
which may include protected health information may no longer be protected by law.
<table>
<thead>
<tr>
<th>Signature of Participant</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of parent/guardian</td>
<td>Date/Time</td>
</tr>
<tr>
<td>Name of Photographer</td>
<td>Date/Time</td>
</tr>
</tbody>
</table>

For non-medical photographs, videotapes or audiotapes for non-medical purposes for use by The MetroHealth Foundation, Marketing or Media Relations, please refer to the form in Attachment B. MHS FORM 031047901 4/05
METROHEALTHMEDICAL CENTER

Human Investigation Consent Form

CONSENTIMIENTO

Kent State University

Título del Proyecto: Latina Adolescent Parenting Project

Investigadora: Dra. Josefina Grau, Kent State University

Estimadas Participantes y Padres:

En colaboración con MetroHealth Medical Center, Kent State University está conduciendo un estudio acerca de los factores que influyen en el bienestar de madres Latinas jóvenes y sus hijos/as. Nos gustaría que participes en este estudio. Si decides participar, te visitaremos en tu casa dos veces, una vez en el futuro cercano cuando tu hijo/a tenga aproximadamente 1 año y medio, y la otra vez, seis meses más tarde. Las visitas serán fijadas para el día y la hora que a ti te convenga, y serán conducidas por dos investigadoras mujeres. Durante cada una de las visitas, una de las investigadoras filmará a tu hijo/a mientras le administra una prueba de su desarrollo. Después de eso, la investigadora te filmará mientras le enseñas y juegos con tu hijo/a. Finalmente, te entrevistaremos individualmente acerca de tu propio bienestar (por ejemplo, tu adaptación social y personal, tus relaciones con tu familia y amigos) y acerca del comportamiento de tu hijo/hija. La visita tomará aproximadamente 2 horas y 1/2. Al terminar cada visita, recibirás $70.00, una copia del video, y un juguete pequeño para tu hijo/a.

Toda la información que obtengamos a través de este estudio se mantendrá confidencial dentro de los límites de la ley. Esto significa que no podremos mantener confidencialidad y tendremos que reportar a las autoridades si encontramos evidencia de abuso de menores (incluyendo a ti, si es que eres menor de 18 años) o de ancianos, o si notamos que tienes deseos de cometer suicidio u homicidio. Para mantener la confidencialidad, la información que nos des será identificada solamente mediante un número (no tu nombre) y será examinada solo por la Dra. Grau y miembros calificados de su grupo de investigación en Kent State University. Para que seas filmada y entrevistada privadamente, las visitas serán fijadas para el día y la hora que sean convenientes para ti. También tendrás la opción de responder a las preguntas de la entrevista en voz alta o señalando las respuestas que estarán escritas en tarjetas al frente de ti. De todos modos, si cuando estás siendo filmada o entrevistada, hay alguien en tu casa que prefieres que no te escuche o vea, podemos interrumpir la filmación o entrevista por un rato, o hacer una cita para continuar la visita en otro momento.
El personal de MetroHealth no tendrá acceso a la información que nos des. Tampoco tendrá la Dra. Grau y su grupo de investigación acceso a cualquier información que MetroHealth Medical Center pueda tener acerca de ti.

Puede que te sientas incomoda cuando te hagamos preguntas acerca de cosas personales, pero nuestra experiencia es que esta incomodidad es, a lo más, leve y breve. Si tu sientes más que incomodidad leve, te recomendamos que llames al Center for Behavioral Health, Child and Adolescent Services en el MetroHealth Medical Center (216 778-3745). Si prefieres, la entrevistadora te puede ayudar a hacer una cita.

Tú no estás obligada a completar el estudio aunque firmes este consentimiento. Puedes saltarte preguntas o dejar de participar en cualquier momento. Te pediremos que firmes otro consentimiento cuando te visitemos la segunda vez. Tu participación es completamente voluntaria y los servicios que puedas estar recibiendo en MetroHealth Medical Center no van a ser afectados si te niegas a participar.

Si tiene preguntas acerca del estudio, por favor llama a la Doctora Josefina Grau al (330) 672-3106 or (216) 212-9188. Este estudio ha sido aprobado por Kent State University y MetroHealth Medical Center. Si tienes preguntas acerca de los reglamentos de investigación de Kent State University, por favor llame al Dr. John L. West al (330) 672 3012. Si tienes preguntas acerca de tus derechos como participante, por favor llame al Institutional Review Board del MetroHealth Medical Center (que es un grupo de personas que revisa las investigaciones para proteger tus derechos) al (216) 778-2077.

Mi firma indica que yo leí y entiendo este formulario, que mis preguntas acerca del estudio han sido contestadas satisfactoriamente, y he decidido participar voluntariamente en este estudio.

Firma de la Participante Fecha

Autorización del padre/madre: Le doy permiso a mi hija para participar en el estudio.

Firma del Padre/Madre Fecha

Firma de la investigadora Fecha (Individuo que obtuvo el consentimiento)

THIS SIDE — IRB OFFICE USE ONLY

Latina Adolescent Parenting Project Consent Form IRB #: 06-00047
HUMAN INVESTIGATION CONSENT FORM

CONSENTIMIENTO DE FILMACION

Tipo: ☐ Fotografía ☐ Grabación de voz/sonido ☐ Video tape ☐ Otro: ____________

Las fotografías de las participantes se tomarán: ☐ Vestida ☐ Parcialmente Vestida ☐ Desnuda

Doy permiso para que mi hijo/a y yo, __________________________, seamos filmados con el entendimiento que el video tape puede ser usado para los siguientes propósitos:

☐ Necesidad médica/diagnostico: __________________________

☐ Educación: Explique: __________________________

☐ Publicación en revistas profesionales: __________________________

☐ Para reportes de investigación: Latina Adolescent Parenting Project __________________________

☐ Otro: __________________________________________________________

Esíplique

El departamento que está pidiendo el video va ha ser responsable de salvaguardarlo de acuerdo a los requisitos de MetroHealth System. Estos no serán puestos en la ficha médica del paciente. El departamento que está pidiendo el video es ___Investigación___

Descripción del video que se solicita: Filmación de 1) la madre mientras le enseña y juega con su hijo/a; el/la hijo/a mientras se le administra una prueba de su desarrollo.

Razón para la solicitud: El video será usado para aprender acerca de los factores que influyen en el bienestar de madres Latinas jóvenes y sus hijos/as.

Mi firma indica que yo entiendo que esta autorización es válida por 60 días, y puede ser revocada por mí o mi representante legal por escrito en cualquier momento. Entiendo que si revoco el permiso esto no tendrá ningún efecto en las acciones que se tomaron antes de recibir el pedido de revocación. Entiendo que para que la revocación sea efectiva, yo debo hacerlo por escrito y mandarlo al departamento que pidió el video. La nota de revocación será puesta en la ficha médica después de ser evaluada por el departamento.

También entiendo que una vez difundida, puede que nuevas revelaciones de mi información, que puede incluir información médica que es protegida, ya no sea protegida por la ley.

Firma de la participante ____________________________________  Fecha ______________
<table>
<thead>
<tr>
<th>Firma del Padre/Madre de la participante</th>
<th>Fecha</th>
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<table>
<thead>
<tr>
<th>Nombre de la persona tomando el video</th>
<th>Fecha</th>
<th>Testigo</th>
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<tr>
<td>MHS FORM 031047901</td>
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</table>
Appendix B. Maternal Questionnaire Demographic Questions

Language
(CHECK ONLY ONE ANSWER)

1. English
2. Spanish

How far have you gotten in school?

1. Less than seventh grade
2. Seventh grade
3. Eighth grade
4. Ninth grade
5. Tenth grade
6. Eleventh grade
7. Twelfth grade
8. High school diploma/GED
9. Partial college
10. College graduate
11. Other <SPECIFY> (GO TO QUESTION 15)
12. DON'T KNOW
13. REFUSED

Are you in school now?

1. No (GO TO QUESTION 18)
2. Yes, part time/night school
3. Yes, full time
4. DON'T KNOW
5. REFUSED

Now, I'd like to find out a little bit about how you support yourself. Are YOU working at a job right now?

1. Yes, full time
2. Yes, part time
3. No (GO TO QUESTION 25)
4. DON'T KNOW (GO TO QUESTION 25)
5. REFUSED (GO TO QUESTION 25)

Do you receive any welfare benefits?

1. No
2. Food stamps only
3. Medical card only
4. Monthly check
5. Money for day care
6. Two or more of the above
7. DON'T KNOW
8. REFUSED
In what country was your mother born?
   □ 1. 1. Mainland USA
   □ 2. 2. Puerto Rico
   □ 3. 3. Dominican Republic
   □ 4. 4. Mexico
   □ 5. 5. Other <SPECIFY>
   □ 6. 6. DON’T KNOW
   □ 7. 7. REFUSED

In what country was the mother of your mother born?
   □ 1. 1. Mainland USA
   □ 2. 2. Puerto Rico
   □ 3. 3. Dominican Republic
   □ 4. 4. Mexico
   □ 5. 5. Other <SPECIFY>
   □ 6. 6. DON’T KNOW
   □ 7. 7. REFUSED

In what country was the father of your mother born?
   □ 1. 1. Mainland USA
   □ 2. 2. Puerto Rico
   □ 3. 3. Dominican Republic
   □ 4. 4. Mexico
   □ 5. 5. Other <SPECIFY>
   □ 6. 6. DON’T KNOW
   □ 7. 7. REFUSED

In what country was your father born?
   □ 1. 1. Mainland USA
   □ 2. 2. Puerto Rico
   □ 3. 3. Dominican Republic
   □ 4. 4. Mexico
   □ 5. 5. Other <SPECIFY>
   □ 6. 6. DON’T KNOW
   □ 7. 7. REFUSED

In what country was the mother of your father born?
   □ 1. 1. Mainland USA
   □ 2. 2. Puerto Rico
   □ 3. 3. Dominican Republic
   □ 4. 4. Mexico
   □ 5. 5. Other <SPECIFY>
   □ 6. 6. DON’T KNOW
   □ 7. 7. REFUSED
In what country was the father of your father born?

- 1. Mainland USA
- 2. Puerto Rico
- 3. Dominican Republic
- 4. Mexico
- 5. Other <SPECIFY>
- 6. DON’T KNOW
- 7. REFUSED

In what country were you born?

- 1. Mainland USA
- 2. Puerto Rico
- 3. Dominican Republic
- 4. Mexico
- 5. Other <SPECIFY>
- 6. DON’T KNOW
- 7. REFUSED

Birth order of child in study.

- 0. Only child
- 1. First child
- 2. Second child
- 3. Third child
- 4. Fourth child
Appendix C. Economic Strain

For the next few questions, I'd like you to tell me which of these responses comes closest to describing the usual situation of you and the people you live with - your household. If you live alone, you should just answer these questions about yourself.

1. Do you feel your household is able to afford decent housing?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

2. Is your household able to afford furniture or household items that need to be replaced?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

3. Can your household afford the kind of transportation it needs?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

4. Do you think your household has enough money for the kind of food you and your household should have?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

5. Does your household have enough money for the kind of medical care you and your household should have?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused
6. Does your household have enough money to buy decent clothing?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

7. Do you feel your household has enough money for the kind of recreation you and your household want?
   1. Never
   2. Sometimes
   3. Most of the time
   4. Always
   5. Refused

8. How much difficulty does your household have paying bills?
   1. Not at all
   2. A little
   3. Some
   4. A lot (Very)
   5. A huge amount (Extremely)
   6. 7. Refused

9. At the end of the month, do you have...
   1. Not enough money
   2. Just enough money to make ends meet
   3. Some money left over
   4. Refused
Appendix D. Life Events Scale

Responses
1. Extremely bad
2. Somewhat bad
3. Neutral
4. Somewhat good
5. Extremely good
6. Did not happen in the last year

In the last year, did you get married? Impact?
Began a relationship in last year?
Broke up with someone in last year?
Separated from husband in last year?
Got divorced in last year?
Close friend or family member moved away in last year?
Someone else moved in or out of household in last year?
You moved in or out of household in last year?
Robbery or attempted robbery of home in last year?
Pregnancy in last year?
Birth of child in last year?
Miscarriage in last year?
Abortion in last year?
You experienced a serious illness/injury/hospitalization in last year?
Husband/partner experienced serious illness/injury/hospitalization in last year?
One or both of your parents experienced serious illness/injury/hospitalization in last year?
Your child experienced serious illness/injury/hospitalization in last year?
Another close relative experienced serious illness/injury/hospitalization in last year?
Death of a: husband or partner.
Death of a: parent.
Death of a: child.
Death of a: close relative/friend.
Started work.
Quit or was laid off from work.
Change at work (demoted, promoted, etc) in last year?
Change of schools.
Started school/vocation training.
Graduated from school/vocational training.
Dropped out of school/vocational training.
Had majors problems in school/vocational training.
Detention in jail or youth facility.
Other problems with the law.
You were mugged or robbed.
Have you experienced any other significant events in the last year?
1. No
2. Yes
3. REFUSED

Which was MOST significant of these events?

How did it affect you?
1. Extremely negative
2. Somewhat negative
3. Neutral
4. Slightly positive
5. Extremely positive
6. REFUSED
Appendix E. Acculturation Rating Scale for Mexican Americans – II

Please tell me the response that best describes your personal opinion about each of the following statements:

Responses
1. Not at all
2. Very little or not very often
3. Moderately
4. Much or very often
5. Extremely often or almost always
6. REFUSED

I speak Spanish.
I speak English.
I associate with Anglos/Americans.
I associate with Latinos.
I enjoy listening to Spanish language music.
I enjoy listening to English language music.
I enjoy Spanish language TV.
I enjoy English language TV.
I enjoy English language movies.
I enjoy Spanish language movies.
I enjoy reading (for example books) in Spanish.
I enjoy reading (for example books) in English.
I write (for example letters) in Spanish.
I write (for example letters) in English.
My thinking is done in the English language.
My thinking is done in the Spanish language.
My contact with Latinos has been
My contact with Anglos/Americans has been
My father identifies or identified himself as Latino.
My mother identifies or identified herself as Latina.
My friends, while I was growing up, were of Latino origin.
My friends, while I was growing up, were of Anglo/American origin.
My family cooks Latino food.
My friends now are of Anglo/American origin.
My friends now are of Latino origin.
I like to identify myself as an Anglo-American.
I like to identify myself as an American of Latino origin.
I like to identify myself as a Latina.
I like to identify myself as an American.
Appendix F. Scales for Bayley Cognitive Behavioral Scoring

1. Adaptation to Change in Test Materials

A child who has difficulty making the transition may become upset when the examiner tries to induce him or her to relinquish materials for a new task. A child who easily makes the transition from one material to another will show interest in the new material, even though she or he was interested in what she or he was playing with, and readily relinquish the old material for the new material presented.

Low scores indicate that the child consistently resists relinquishing materials or refuses new materials, medium scores mean the child makes approximately half good transitions and half bad transitions, and high scores indicate that the child consistently relinquishes old materials and accepts new ones.

7. Frustration with Inability to Complete Tasks

The degree to which the child becomes frustrated when she or he is unable to understand or complete a task. The intensity of the expression of frustration needs to also be considered, not just frequency.

Low scores indicate that the child consistently becomes frustrated, medium scores mean that the child becomes frustrated occasionally (about half of the time), and high scores indicate that the child almost never becomes frustrated.
Appendix G. Coding Scales for Child and Maternal Behaviors

Latina Mothers Project: Clean-Up Task Scales
Adapted from Kochanska & Aksan, 1995

The coding is done using a straightforward time interval approach (30-sec segments).

Coding starts when experimenter places plastic box on the ground in front of mother and child (typically, experimenter also explains the task). The official start time for each segment will be prerecorded by an independent coder. The cleanup task lasts 5 minutes. Occasionally, the cleanup will be completed earlier, if the mother pronounces it finished.

If the task ends before the five minutes are up:
(a) If the child has completed the task and the mother provides an obvious signal to the child that the task is finished (could be verbally, or by making an effort to move the basket of toys away from the child), the task will be considered over and the final segment is coded based on the following criteria.
(b) If the final segment lasts 15 seconds or less, the predominant code will not be retained, and the segment will be marked END
(c) If the segment lasts 16-30 seconds, the appropriate predominant code should be given.

Child Compliance Codes

For each of the 30-sec segments, assign one predominant code for child compliance.

Notes:
(a) For Codes 2-6, whenever the child's verbal and actual behavior are contradictory, go with the latter.

Examples:

Child responds sweetly "Yes, I will clean up", but continues to play with toys and does not begin to clean, code passive noncompliance.

Child argues and protests, but continues to clean up nevertheless, code either committed or situational compliance, depending on the usual cues, such as the quality of the cleaning behavior.

(b) Modeling of the task may be regarded as a form of nonverbal instruction, as long as it is not excessive (e.g., the mother is doing the task herself).
Example:

Mother has child’s attention and places a toy in the basket to show the child.

**Time Out (Code 1)**

There is no on-task behavior on the part of the child. The mother may be aware of it, but she does not attempt to reorient the child back to the task; she may even be participating in play. In other words, mother has suspended the cleanup for the duration of that segment.

Examples:

An exchange that may have started out as an indirect route to get the child to clean up may turn into an educational exchange, e.g., mother is preoccupied with showing the child an object and trying to teach him/her the name of it. S/he becomes clearly more interested in the child's cognitive/language competence than in putting the toys away.

Mother is happy with the progress and uses time out as a positive break before the rest of the toys get picked up (e.g., reads book).

Mother uses time out to smooth uncooperative behavior, which may potentially become aversive and defiant (e.g., a brief break for affection, cuddling).

Mother is unaware of the off-task behavior; s/he attends to his/her own agenda and does not try to reorient the child to cleanup; the mother could not care less.

Mother has given up on trying to get the child to comply and has started cleaning up him/herself.

Mother picked up or engaged the baby after all toys have been put in the basket. Often, mothers do that to prevent the child from going back to the basket. If the baby manages to go to the toys and get involved with them, you may need to resume the coding of the cleanup after the string of Codes 1 (Time out).

In sum, Code 1, Time out, is coded given child off-task behavior for a substantial portion of the segment and the total absence of parental directives to clean up.

**Committed Compliance (Code 2)**

Committed compliance: Internalized and wholehearted behavioral compliance to the clean-up task. The maternal agenda functions as child's own and the child embraces/endorses the directive.

Note: It is important to note the overall tendency of the mother in giving directives/prompts regardless of the child's behavior. Some mothers continue prompt even if the child is actively
putting toys away; some mothers reduce prompting when child is complying. This general tendency of the mother must be considered before a code is assigned.

Child stays on task with very few or no maternal directives. In other words, the child complies to the general directive through most of the segment. Child does not appear to need immediate maternal interventions/prompts to maintain task orientation. Clearly, the child has accepted the task as his/her own, and is actively involved in picking up toys.

Committed compliance may be coded even if mother continues to be engaged with the child, for example, continues to clap or sing to keep the child's spirits up. Sometimes, mother is handing consecutive toys to the child to be put into the basket.

Signs of committed compliance include:

- Child eagerly snatches toys from mother and throws/puts energetically/resolutely into the basket without signs of attention wavering.
- Child beams and/or otherwise expresses positive emotion upon putting a toy(s) into the basket (claps, smiles).
- Child picks up the toys that have not been picked up by the mother and throws them into the basket.
- When finished with picking up one set of toys s/he spontaneously seeks out another set of toys without immediate prompting by the mother.

Overall, child appears oriented to the mother and to the chore, appears to feel that the cleanup is an interesting task, is intent on the activity, his/her attention does not slip away throughout most of the segment. Typically, the child appears positive and accepting of the task.

Sometimes, child is cleaning up and appears clearly task-oriented. Yet, the mother continues to prompt. The coder feels, however, that even if mother ceased prompting, the child would nevertheless continue to clean up; then also use Code 2. The child may maintain on-task behavior at a slow pace and may start counting the toys, or comment on colors. These are not necessarily distractions on the part of the child as long as the flow of the cleanup is maintained.

Sometimes child is working but for a short while gets distracted. It is important to distinguish whether the distraction came from the mother (question, request, comment) or from the child (child got interested in a toy and ceased to clean up). If the distraction came from the mother, for example s/he began to question child about the name of a toy, child should still get credit for Code 2. If the child's attention wavered spontaneously, Code 3 is more likely.
**Situational Compliance (Code 3)**

Receptive to maternal agenda, but not fully internalized; Cooperative in principle, but responsive only to the immediate maternal control; Work sustained by the mother's control; Attention slippages common; Half-hearted

Child appears generally task-oriented and willing to comply, but needs prompting occasionally and/or frequently. Child may tend to get distracted without frequent prompts. The distractions do not come from the mother, but result from the child's shifting attention to play or another activity. There may be some reluctance, but no overt resistance, to accept the cleanup agenda. It may appear that the child's patience is running out, but s/he is trying to be compliant. Child may look as if s/he would rather do something else, and compliance is half-hearted and lacking the positive motivational flavor typical for committed compliance.

Mother may attempt to turn the cleanup into play in order to elicit cooperation by saying, for example: "Let's make baskets", or "Let's see who can put more toys away", etc. Child may then start picking up as part of play. Child is cooperative and good-natured, receptive to mother's interventions, but the cleanup is not his/her genuine agenda. Thus, Code 2 (committed compliance) may not be given. Code 3 (situational compliance) is given.

Typical for situational compliance are attention slippages; for example, while carrying a toy to the basket child begins to play.

Also, if the mother continually hands the toys over to child to be thrown to the basket, and child throws them in, but somehow his/her heart is not in it, and as soon as mother slows down or stops, s/he also stops, code situational compliance.

**Passive Noncompliance (Code 4)**

Passively reluctant to accept maternal agenda; Not cooperative; Non-receptive to maternal agenda; Ignoring directive

Child does not comply unless prompted. When prompted, the most likely response is to ignore the directive. Most typically, child may either continue to play in silence, talking to him/herself (goes "deaf") or may attempt to initiate some other conversation; may talk about the toys, lie on the floor, etc. The behavior is irrelevant to the task and the content of maternal directive. If there is any minimal compliance, it is reluctant and resistant to the prompts. Getting toys out of the basket is coded as passive noncompliance (unless with saying "No" non-aversively, then overt resistance, or with anger, then defiance). Trying to leave the room is also considered passive noncompliance (if without anger).

In some segments, the baby will put some toys in the basket and take some out. To decide between some form of compliance vs noncompliance, consider whether more toys went in or out (unless it is clear that child spent much more time doing one of these things).
**Overt Resistance (Code 5)**

Overtly rejecting maternal agenda; Non-aversive protest present

Child does not comply unless prompted. If prompted, the most likely response is overt refusal to clean up, and/or negotiation (in a non-aversive manner). Code 5 encompasses refusals and negotiations. Code 5 is not used if there is any trace of anger or affectively aversive expression in body language, tone, etc. Then, Code 6 (defiance) is appropriate. Shaking head ("no") is also resistance.

Note: Overt resistance rarely lasts through most of the segment (thus, using the criterion of predominant response would yield extremely low rates of occurrence). Therefore, the requirement that a behavior must last through most of the segment is relaxed. If an overt oppositional response is clearly present and articulated, or happens more than once in a segment, and there is no substantial compliance (thus clearly child is rejecting the agenda), then the segment should be coded as overt resistance. If there is a brief and poorly articulated behavior (e.g., shakes head) in the overall context of another behavior, e.g., passive noncompliance, use the other code as predominant.

Other examples:

"No, I told you I don't want to clean up"; "Let's play bowling first"; "It's not my job to clean"; "You do it"; "You clean up"; "No, thank you".

**Defiance (Code 6)**

Defying/rejecting maternal agenda; Protest/resistance accompanied by anger

Child does not comply unless prompted. If prompted, the most likely response is to resist by defiance, with poorly controlled anger, overt expression of frustration in body language, voice, etc. The child may start crying, whining, kicking toys around, having a temper tantrum, doing exactly the opposite of what s/he has been told. Basically, any resistance behavior, if accompanied by anger or other negative affect, is coded as defiance. Trying to leave the room or taking toys out of the basket, if accompanied by fussing or whining is defiance.

Note: Like overt resistance, defiance rarely lasts through most of the segment (thus, using the criterion of predominant response would yield extremely low rates of defiance). Therefore, the requirement that a behavior must last through most of the segment is relaxed. If an angry, oppositional response is clearly present and articulated, and there is no substantial compliance (thus clearly child is rejecting the agenda), even if brief, the segment should be coded as defiance. If it is not particularly strong (e.g., mild whining, fussing), it needs to last for a predominant part of the segment to be coded. If there is a brief and poorly articulated behavior (e.g., low intensity whine, fuss) in the overall context of another behavior, e.g., passive noncompliance, use the other code as predominant.
Maternal Global Codes

Use the predominant code that best describes maternal style of influence for each 30-second segment.

Notes: If child gets Time Out (Code 1), mother necessarily has to get either No interaction (Code 0) or Social Exchange (Code 1). It is possible, however, for mother to get Code 0 or Code 1, but for the child to get a compliance code (for example, mother absorbed in a questionnaire but child cleaning up toys energetically, Committed Compliance, or, if shaky and wavering, Situational Compliance--for older children mostly), but not a noncompliance code.

No Interaction (Code 0)

There is no verbal or physical overture from the mother to the child throughout the segment. The mother does not attempt to control or enter into a social exchange with the child. She may be working on questionnaires or reading; she is psychologically uninvolved with the child.

Note: Do not use Code 0 simply because mother did not say anything in a segment. Often, mother will be silently sitting on the floor watching the progress of the cleanup, oriented toward the child, in a kind of expectant/supervisory mode, and she appears psychologically involved in the cleanup. Then Code 2 is appropriate (unless there is a sign of anger/threat, then Code 4).

Social Exchange, but no cleanup-related control (Code 1)

Mother does not attempt to control child behavior (as pertains to the cleanup) either verbally or physically, but she does interact with the child. This code covers several situations.

Mother interacts with the child, but in a playful manner. There is no attempt to control/discipline child. Mother may be playing with the child, teaching him/her about colors or shapes, hugging, carrying.

Mother may be controlling child, but control pertains to an issue other than the cleanup. She may be regulating the child's eating, checking diaper, etc.

Mother is engaging the child in off-task conversation, seems to act as if the cleanup is not a part of the agenda right now (typically, that would correspond to child behavior Code 1, Time Out).

While using Codes 2-4, decide on the overall tone of the maternal influence, using both verbal and nonverbal cues. For example, the use of physical interventions suggests Code 3 or 4, even without negative affect; negative, angry, impatient affect always suggests Code 4, even without a physical intervention. Relaxed, affectively positive attitude, exclusively verbal and "nice" intervention suggests Code 2.
Gentle Guidance (Code 2)

Mother directs child behavior (regarding the cleanup) in a gentle, subtle, or playful manner. No forceful verbal or physical control is present. She tries to get the child to clean up using polite suggestions, hints, playful comments, reasons. She turns the cleanup into a game, for example, sings, claps, throws toys playfully into basket, suggests loading and dumping the truck. Tries to elicit the child's interest and challenge child, e.g., "Can you do this?". Often uses positive incentives, e.g., "Good boy/helper", "Good!", "Great job", "What a throw!", "Yeah!". Mother’s demeanor is playful, encouraging, affectively positive, affectionate; control is understated and "veiled" in play-like and interactive quality. Mother may be monitoring the progress of the cleanup with proximity and/or body posture but may not be giving directives; she may hold the basket to help/prompt child, in the hope that this will be a sufficient hint for the child to continue to clean up. Code also if mother does not pretend that s/he is playing, but speaks very softly and thus, the pressure is low (unless, of course, she uses threats).

Control (Code 3)

Mother controls child behavior in a non-forceful yet matter-of-fact, no-nonsense, and assertive manner. In order for a mother to receive a control code of 3, she must issue commands and prohibitions for the majority of the coding segment (30 seconds). Examples of commands and prohibitions are: "put these here", "we have to clean up, NOW", "no, no", "do not play now", C's name said in a somewhat tense and forceful tone; reasons, such as "we have to put them all away, "Kathy asked you to pick them up", if issued without strong pressure, forcefulness, or threat. Typically, these commands are stronger directives and must contain some tonal quality reflecting a hint of impatience or mild irritation or frustration that does not qualify as anger. Mother gives firm, somewhat forceful directives as to how to proceed; explains as to why it is time to pick up; gives firm yet non-threatening direct commands. Control is not masked as play, but there is no anger or explicit threat. With this code, however, the mother may make subtle references to punishment or restriction such as "Should I start to count?" or she may issue the command repeatedly, making an attempt to move close to the child.

Forceful, Negative, High Power Control (Code 4)

Mother directs child behavior regarding the cleanup in a somewhat forceful/power-assertive manner. She raises her voice, uses assertive, decisive tone, may use threats or negatives. Any form of control that is delivered in an impatient, forceful, threatening, angry, or affectively negative tone is coded as forceful. Any control that clearly confronts the child in a "combative" manner and involves a clash of will is coded as forceful. Mother may use physical interventions that are delivered with the intention to reorient the child to the agenda (a tap on the shoulder is too weak to assign Code 4, but picking up the child and moving to a different spot is). Mother restricts child movement by pulling his whole body into the task area, snatches toys away from the child. Verbal commands may contain a threat of a withdrawal of a privilege (e.g., "you won't go swimming unless ."), a negative (e.g., "this is not the way we clean", "what did I tell you, get over here"). If mother issues a time-out or begins to count, implying punishment if a certain number is reached, code this as forceful, negative control if anger is present. Otherwise, if there is no anger, code the mother's behavior as control.
As with child defiance, segments with predominantly forceful control are very rare. Therefore, Code 4 should be used whenever there is a well-defined, clearly articulated show of force, anger, or threat on the part of the mother, even if it is brief. If it is a low-level expression, consider the overall tone of discipline in the segment.
Appendix H. Clean Up Task Coding Sheet

Name: __________________________ Date: __________________________
Participant #: __________________ Language: _________________________
Home Visit: 1 or 2

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**Additional Comments:**
Appendix I. Clean Up Task Reliability Sheet

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