

Change in Parenting Behaviors from Infancy to Early Childhood: Does Change in Family Income Matter?

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The current study intended to answer two main questions: First, do parenting behaviors change as family income changes? Second, if changes in family income are associated with changes in parenting behaviors, is this association different for families of various poverty statuses and ethnicities? Secondary data analyses were conducted using data from Phases I and II of the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development. The authors found family income increase to predict decreased maternal detachment and negative regard but bears no relation to maternal sensitivity or stimulation of development. Changes in family income also predicted changes in parenting behaviors especially strongly for poor, Hispanic and White families. Implications for parenting research and public policy are discussed.

KEYWORDS *family income, ethnicity, poverty status, parenting behavior*

Before children enter school, parents are the most influential figures in their lives. During these impressionable years, parenting behaviors and styles may be particularly instrumental in promoting healthy child development. Indeed, using longitudinal data and family income as one of seven cumulative risk items, Trentacosta et al. (2008) discovered parenting as the mediator between risk and child problem behavior, a finding that was consistent with Conger, Schofield, and Neppel's (2012) research on the influence of harsh as well

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as supportive parenting on children. Therefore, examining the determinants of parenting behaviors is valuable to researchers, practitioners, and policy makers who are interested in the welfare of children and families. Poverty is known to correlate negatively with children's home environment (i.e., Garrett, Ng'andu, & Ferron, 1994; Miller & Davis, 1997). The current research aims to study family income (poverty, in particular) as a potential predictor of parenting behaviors.

There are many aspects of the parenting behavior to be researched. One can study parenting goals and values, parenting styles, or parenting practices. In fact, Darling and Steinberg (1993) argued for the importance of differentiating between the above three aspects of parenting. According to these researchers, parenting styles describe interactions between parent and child across various domains, parenting practices are more domain specific, whereas parenting goals and values directly influence parenting styles and parenting practices. In this study, we investigated parenting behaviors that are more stylized.

PARENTING STYLES

Diana Baumrind (1966, 1968, 1971, 1972) classified parenting styles into three prototypes: Permissive, authoritarian, and authoritative. Permissive parenting style is an indulgent style with which parents convey empathy and warmth but not high expectations. Authoritarian parenting is a restrictive and punitive style in which parents place firm limits on children and allow little verbal exchanges between parent and child. Authoritative parenting is a style in which parents place firm limits and controls on children while maintaining warmth and permitting parent—child verbal exchanges. In the United States, and especially among middle-class White families, authoritative parenting style is found to predict developmental competency in children and adolescents (e.g., Berk & Spuhl, 1995; Darling & Steinberg, 1993).

However, when expanding beyond the dominant U.S. culture, the relationship between parenting styles and child outcome is less straightforward (Darling & Steinberg, 1993). For example, though Steinberg (2001) concluded that authoritarian parenting style negatively affected all children, except to a lesser degree for African and Asian American adolescents, Feldman, Rosenthal, MontReynaud, Leung, and Lau (1991) revealed that Asian adolescents showed no negative effects associated with the authoritarian parenting style. What is more, authoritarian parenting style has been shown to predict academic achievement for Asian Chinese children and adolescents (Chao, 2001; Wang & Phinney, 1998). Authoritarian parenting style may have some beneficial effects for African American children as well. For example, Baumrind (1972) found that though authoritarian parenting style was associated with timid behaviors in White children, it was associated with assertiveness in African American girls.

In sum, despite similarities, the link between parenting style and child outcome shows variation depending on ethnicity. These cross-cultural differences were such that some scholars cautioned against treating authoritative parenting as the ideal parenting prototype for all families (e.g., Chao, 2001). Other scholars observed that though applying Baumrind's (1968) parenting typologies to ethnic minority parenting was problematic, the orthogonal approach, in which parenting dimensions such as warmth and control were investigated separately, was more successful in predicting child outcome in ethnic minority families (e.g., Kim & Rohner, 2002; Lim & Lim, 2004). For this reason, an orthogonal approach to the investigation of parenting styles was adopted for the current study, given that we have an interest in the parenting behaviors of ethnic minority families.

PARENTING STYLES AND ETHNICITY

Even though the orthogonal approach in studying parenting styles predicted child outcome more uniformly across ethnicity than Baumrind's (1968) parenting style typology, the orthogonal approach also revealed child outcome to be differentially affected by parenting styles depending on ethnicity. For example, Dearing (2004) found that the negative impact of restrictive parenting was worsened in dangerous neighborhoods for White children. In contrast, for African American and Latino American children, restrictive parenting was protective in dangerous neighborhoods. Also Dotterer, Iruka, and Pungello (2012) found maternal intrusiveness to mediate the correlation between socioeconomic status and children's cognitive abilities at age 36 months in 164 mother-child dyads from African American and White families. However, maternal sensitivity mediated the link between socioeconomic status and children's cognitive abilities for Whites only. This was in accord with the research of Pungello, Iruka, Dotterer, Mills-Koonce, and Reznick (2009) who found maternal intrusiveness to predict child expressive language growth rate between age 18 and 36 months in White families, but this was not the case for African American children. This pattern of weaker association between parenting behavior and child outcome in African American families relative to White families was additionally shown by Pachter, Auinger, Palmer, and Weitzman (2006) who found the influence of maternal depression on child behavioral problems to be mediated in part through parenting in White and Latino families, but not in Black families.

Finally, in a study sampling from ethnically diverse, low-income families (Mistry, Biesanz, Chien, Howes, & Benner, 2008), maternal sensitivity, cognitive stimulation, and positive regard mediated the relationship between family income and child cognitive outcome for immigrant and native families. However, maternal distress mediated the relationship between family income and child aggression among native families with U.S.-born parents

only. It would thus seem that the orthogonal approach to parenting styles is indeed useful in uncovering cross-ethnic/cultural similarities and differences.

PREDICTORS OF PARENTING BEHAVIORS

Because research (as reviewed above) has shown repeatedly that parenting styles are overall good predictors of child outcome, the antecedents of parenting behaviors become an important area of investigation to promote optimal child development. In other words, what are the predictors of parenting behaviors? In a seminal article, Belsky (1984) presented an ecological model on the determinants of parenting behavior. In this model, the characteristics of the parent, the characteristics of the child, and the child-rearing context were posited as three sources that determined parenting behaviors. For example, culture has been found to influence parenting style to fulfill the independent, interdependent, and relational socialization goals in Germany, Cameroon, and Costa Rica, respectively (Keller, Borke, Yovsi, Lohaus, & Jensen, 2005). The present study focused on one component of the child-rearing context, that is, family income, while taking into consideration the characteristics of the parent and the child.

FAMILY INCOME AND PARENTING BEHAVIORS

Past studies sometimes revealed a weak association between family income and parenting behaviors, especially in national samples (e.g., McLeod & Shanahan, 1993). Other studies, in contrast, have linked economic hardship to punitive and inconsistent discipline (Jackson, Brooks-Gunn, Huang, & Glassman, 2000; McLoyd, 1990, 1998).

Despite research findings connecting poverty to less competence-promoting parenting behaviors (e.g., Jackson et al., 2000; McLoyd, 1990, 1998; Taylor, Larsen-Rife, Conger, Widaman, & Cutrona, 2010), we know little about whether poverty relates to a persistent pattern of negative parenting behaviors, or whether the impact of poverty on parenting behaviors is more transient. We first examine the literature on the stability and change of parenting behaviors.

Longitudinal research revealed stability and change in parenting behaviors. This was true for the parenting of infants, young children (Corwyn & Bradley, 2002; Dallaire & Weinraub, 2005; Holden & Miller, 1999; Lohaus, Keller, Ball, Voelker, & Elben, 2004), as well as older children and adolescents (Forehand & Jones, 2002; Loeber et al., 2000).

Corwyn and Bradley (2002) investigated the stability of maternal sensitivity in 102 mothers from when their children were age 15 months to 36 months. Absolute and relative stability of maternal sensitivity were high. *Absolute stability* is the consistency of a person's score on some measure over

time, and *relative stability* is the consistency of a person's rank order on some measure over time within a group of people (see more detailed definitions in Forehand & Jones, 2002; Holden & Miller, 1999; Loeber et al., 2000). Similar to Corwyn and Bradley, Verhoeven, Junger, van Aken, Deković, and van Aken (2007) also revealed in an one-year longitudinal study that parenting behaviors based on self-reports are quite stable across the three measurement times, when the children were age 17, 23, and 29 months. For the most part, positive and negative aspects of parenting behaviors showed high absolute and relative stability. In contrast, Lohaus and colleagues (2004) found rather low absolute stability in maternal sensitivity over 9 months. The difference in the age of the participating children might have contributed to the different findings in the above studies. Unlike Corwyn and Bradley and Verhoeven et al., who studied the parenting of older infants and toddlers, Lohaus and colleagues recruited mothers of infants younger than age 1 year. It is possible that maternal sensitivity is less stable in the infants' first year of life but becomes more stable in the second, third, and later years. Indeed, Dallaire and Weinraub (2005) confirmed in their secondary data analyses of 893 parents in the National Institute of Child Health and Human Development's (NICHD) Study of Early Child Care and Youth Development (SECCYD) that in the children's first 6 years parenting behaviors were less stable and more variable when the children were younger compared to when the children were older.

Another interesting discovery made by Dallaire and Weinraub (2005) was that different parenting behaviors seemed to show different patterns of change. Specifically, sensitive and stimulating parenting behaviors displayed a considerable amount of relative stability (though not absolute stability, as parents grew less sensitive and more stimulating over time). However, negative parenting behaviors, such as detachment and hostility, were less stable. Dallaire and Weinraub suggested that these negative parenting behaviors might reflect transient state in parents, such as mood. Their suggestion led us to hypothesize that changes in family income may predict changes in negative aspects of parenting better than changes in positive aspects of parenting. Indeed, an increase in harsh parenting from birth to age 3 years was observed in a study of 488 mothers who were at risk for child maltreatment: Kim, Pears, Fisher, Connelly, and Landsverk (2010) found a significant increase in maternal harsh parenting, especially between the ages 1 and 2 years.

Stability and change in parenting behaviors have been observed in parents of older children and adolescents as well. For example, Forehand and Jones (2002) followed 124 low-income African American families for 4 years to examine the stability of authoritative parenting from late childhood to early adolescence. They found high relative stability in monitoring and warmth, but not absolute stability. Absolute stability declined over the 4 years of study on monitoring and warmth. Similarly, following a sample of 1,517 boys

from age 6 to 18, Loeber and colleagues (2000) found high relative stability in authoritative parenting, but not absolute stability. Mirroring Dallaire and Weinraub (2005), absolute stability was rather low in that over time, parents used physical punishment less, supervised less, and engaged in positive parenting less.

In summary, parenting behaviors exhibit stability as well as change over time from infancy to adolescence, though changes seem especially prominent during infancy. In addition, relative to more positive aspects of parenting behavior, negative aspects of parenting behavior appear less stable. The first few years after childbirth represent a period of many transitions for parents. This is a period during which parents develop and adopt a workable parenting style; it is also a period filled with potential fluctuations in family income as parents choose to work or not. Therefore, it is meaningful to see if changes in family income correlate to changes in parenting behaviors.

Static assessment has connected low family income to poor parenting behavior via parental psychological stress (e.g., Gutman, McLoyd, & Tokoyawa, 2005; Jackson et al., 2000; McLoyd, 1990, 1998; Nievar & Luster, 2006). Along the same vein, poverty was found to predict low maternal responsiveness and frequent use of physical punishment (McLeod & Shanahan, 1993), such as spanking (Berger, 2004). More recently, Lee, Lee, and August (2011) revealed associations between family income, parental depression, parenting practices, and child's externalizing problem behavior. Specifically, they sampled 290 predominantly rural families with young children who were at risk for developing serious conduct problems. Family income was found to negatively correlate with parental depressive symptoms and positively correlate with good parenting practices.

More dynamic assessment of the relationship between family income and parenting behavior is rare (see Newland, Crnic, Cox, & Mills-Koonce, 2013; Votruba-Drzal, 2003 for exceptions). One of these rare studies was a classic study by Elder, Nguyen, and Caspi (1985) who followed 167 children of the Great Depression era from 1931 to 1939 starting when the children were in the fifth grade. Drastic income loss as a result of the Great Depression was found to increase the rejecting behavior of fathers. More recently, in their Three-City Study, Coley, Lohman, Votruba-Drzal, Pittman, and Chase-Lansdale (2007) examined a sample of approximately 2,000 low-income urban families over a 2-year period. They found that increased family income brought about by welfare reform, and maternal employment predicted improved maternal psychological well-being, but showed limited impact on parenting behavior or home environments. The above was true for children of various ages. Coley et al. thus concluded that parenting behaviors and home environments were more resistant to change than maternal economic and psychological well-being.

Coley et al. (2007) were not the only ones to have found welfare policies' limited impact on parenting behavior. Similarly, Dunifon, Hynes, and Peters (2006) used surveys of parents to examine how the pre- and post-1996 welfare reforms influenced child well-being. Stare welfare policies were associated with neither parenting behavior nor child outcome.

In sum, there is more inconsistency over the relationship between family income and parenting behavior under the dynamic assessment using longitudinal designs. Therefore, the causal link between family income and parenting behavior cannot be ascertained at the present time, though additional dynamic assessment of the two could elucidate their complex nature.

FAMILIES OF DIFFERENT POVERTY STATUS AND ETHNICITY

Not all families experience poverty the same way. Some families never experience poverty, other families encounter poverty occasionally, and still others live in persistent poverty. Relative to transient poverty, persistent poverty early in childhood has been found to be particularly damaging to children (Duncan & Brooks-Gunn, 2000). Because changes in income may affect poor families more than families that are never poor (e.g., an increase of \$5,000 per year is a 50% increase for a family with a \$10,000 annual income, but only 10% for a family with a \$50,000 annual income), it is reasonable to predict that income changes will have a stronger impact on the parenting behaviors of parents in poverty.

Indeed, using data from the National Longitudinal Survey of Youth, Garrett et al. (1994) found that improvements in family income had the biggest impact on the home environment (in which parenting behavior is one aspect) of children living in persistent poverty between the ages of 0 to 4. Using data from the NICHD's SECCYD, Dearing, McCartney, and Taylor (2001) found that increases in family income were of little importance to children from nonpoor families but were very important to children who were poor. Between age 1 month and 36 months, when children from poor families experienced noticeable income increases, they exhibited outcomes similar to their nonpoor peers in the areas of school readiness, receptive and expressive language, and prosocial behavior.

Other than poverty status, ethnicity may also mediate the relationship between changes in family income and changes in parenting behaviors. There are observed differences between White and ethnic minority parenting (Baumrind, 1972; McLoyd, 1998; Middlemiss, 2003; Steinberg, Mounts, Lamborn, & Dornbusch, 1991). For example, African American parents are found to be stricter and more power assertive (McLoyd, 1990). On average, African American parents are more likely to interfere with infants' explorations and to use spanking to discipline preschoolers (Bradley,

Corwyn, McAdoo, & Garcia Coll, 2001). Based on Baumrind's (1968) parenting typology, African American parenting appears more authoritarian than White parenting. However, many scholars questioned the validity of using Baumrind's 1968 parenting typology on ethnic minority parents, arguing that parenting styles of low-income ethnic minority parents may be inherently different from those portrayed by the Baumrind (1968) typology (McGroder, 2000).

In McGroder (2000)'s study, "aggravated but nurturant" parenting style was the most prevalent in a sample of low-income African American mothers with preschool children. These mothers demanded a lot of maturity from their children, endorsed relatively coercive disciplinary strategies, while showing much nurturance toward their children. Therefore, the "aggravated but nurturant" parenting style falls between Baumrind's (1968) authoritarian and authoritative parenting styles, in that it is warmer than authoritarian parenting, but more coercive than authoritative parenting. Indeed, this "aggravated but nurturant" parenting style is similar to what Brody and Flor (1998) termed "no-nonsense" parenting style in their study of rural, single-parent African American families with 6- to 9-year-old children. Finally, Brooks-Gunn and Markman (2005) characterized African American parenting style as one of "tough love," such that parents are high in warm, firm control, as well as in harsh control.

The above described differences are partially explained by the fact that currently in the United States, ethnic minority families experience more poverty and stressful life events than White families (McLoyd, 1990, 1998). Also, in Mesman, van IJzendoorn, and Bakermans-Kranenburg's (2012) review of 27 studies conducted in the United States and six conducted in the Netherlands about maternal sensitivity in ethnic minority families with young children, it was revealed that maternal sensitivity was often lower in ethnic minority than in majority families. Mesman et al. (2012) uncovered evidence to suggest that the primary cause of this difference was the socioeconomic disadvantage experienced by ethnic minority families in both countries, whereas they found little evidence for a cultural explanation that is endorsed by other researchers. For example, Garcia Coll & Lamberty (1996) and Garcia Coll and Pachter (2002) supported the cultural explanation in that parental power assertion and the associated values of obedience and respect are reflections of an adaptive culture to ensure survival in a harsh and discriminatory environment.

Regardless of the contributing factors to the differences in ethnic minority and White parenting, examining parenting behaviors dynamically expands our knowledge base on parenting behaviors across ethnicity. For example, though African American parents reportedly spanked their preschoolers more often than White and Hispanic American parents, they decreased their use of spanking more rapidly in subsequent years (McLoyd & Smith, 2002). With these reported differences in ethnic minority and European American parenting, it is possible that parenting behaviors of

ethnic minority and White parents also change differently in response to changes in family income. If change in family income is associated with change in parenting behaviors, it has implications for research and public policy to find out if this association is different for families that are never poor, transiently poor, or persistently poor, and for families of various ethnicities.

RESEARCH QUESTIONS

The following research questions were examined in this study: (1) Do parenting behaviors change as family income changes? and (2) If changes in family income are associated with changes in parenting behaviors, is this association different for families of various poverty statuses and ethnicities? Secondary data analyses were conducted using data from Phases I and II of the NICHD SECCYD.

METHOD

Sample

Data for this study were derived from Phases 1 and 2 of a large scale longitudinal study, the NICHD SECCYD. Out of the final sample of 1,364 mothers, 1,284 (82%) continued their participation through 54 months. For the purpose of the current study, only participants with complete data for when the children were age 1, 6, 15, 24, 36, and 54 months were included in the analyses.

Demographic Variable

The demographic variable included the child characteristic of ethnicity (reflected by two dummy coded variables for African American and Hispanic American status).

Family Income

Total annual family income was reported by the mother at all of the five assessment points. To facilitate statistical analysis, total family income at each assessment point was divided by \$10,000.

To determine the family's poverty status, income-to-needs ratio (also referred to as income-to-poverty ratio) at these assessment points was used. Income-to-needs ratio is an index often used by poverty researchers. It is computed by dividing family income by the poverty threshold, which takes family size into consideration (Dearing et al., 2001; U.S. Census Bureau,

2006). Families with income-to-needs ratios over one at all five assessment points were classified as never poor, those with income-to-needs ratios less than one at one or two assessment points were classified as transiently poor, and those with income-to-needs ratios less than one at three or more of the assessment points were classified as persistently poor.

Parenting Behaviors

When the children were age 6, 15, 24, 36, and 54 months, mother–child interactions were observed either at the family home or in the research laboratory. The 15-minute interaction task at age 6 and 15 months required the mothers to first spend 7 to 8 minutes playing with the children freely. For the second 7 to 8 minutes, the mothers were asked to play with their infants using a specified set of toys. For this study, four areas of parenting behavior, mostly rated on a 1 to 4 scale (1 = *not characteristic*; 4 = *very characteristic*), were chosen: sensitivity, stimulation of development, detachment, and negative regard. Sensitivity reflects mother's prompt and appropriate responses to her child, and there were three ratings on this component. Stimulation of development summarizes the mother's effort at engaging her child in learning. Detachment is mother's lack of physical and emotional involvement with the child and was rated dichotomously. Negative regard is defined as maternal negative affect directed toward the child.

At the 24- and 36-month assessments, the 15-minute interaction involved the usage of toys in three boxes. Mothers were given the option to either play with their children or not. At the end of the 15 minutes, mothers were told to ask their children to clean things up by putting the toys back in the boxes. The same four areas of parenting behavior were used for the 24-month assessment: These were rated the same way as at the 6 and 15 month assessment points. At the 36-month assessment, the following areas of parenting behaviors were rated on a 7-point scale (the higher the number, the more the behavior) and were used for analyses: supportive presence, stimulation of development, respect for autonomy, and hostility. Supportive presence is similar to the sensitivity rating in earlier assessment points, which reflects maternal responsiveness and warmth expressed to the child. Stimulation of development is essentially the same as the rating bearing the same name in previous assessments. Respect for autonomy indicates maternal consideration of children's desires and individual needs. Hostility is similar to the area of negative regard in the assessment points between 6 and 24 months. It indexes the degree to which mothers slighted, became angry with, and/or rejected the child.

The 54-month interaction task required the mother–child dyad to work together in completing three tasks. These tasks were designed to be too difficult for the child to complete alone. Researchers only gave the mothers instructions, and the mothers in turn were instructed to ask the children

to complete the tasks in a specified order, and to offer assistance when needed. The same four areas of parenting behavior as in the 36 month assessment were rated on the same 7-point scale and were chosen for the proposed study: supportive presence, stimulation of development, respect for autonomy, and hostility.

These interactions were videotaped and sent to a central location to be rated by trained research assistants. To assess inter-rater reliability, 20% of the tapes were randomly selected to be rated by two research assistants, after which the intraclass correlation was calculated (Winer, 1971). Inter-rater reliabilities for the chosen parenting behaviors in the five assessment points ranged from .62 to .87.

Study Design

Our primary research questions centered on (1) examining if parental behaviors change as family income changes and (2) if this change occurs, whether it is different for parents of different poverty status and ethnicity using data from the NICHD's SECCYD from the time that children were age 1 through 54 months.

Hierarchical linear modeling (HLM) was used to answer the questions of whether parenting behaviors change as family income changes, and whether this association (if found) is the same for families of various poverty status (i.e., never poor, transiently poor, or persistently poor) and if there were any differences among the three ethnicities (i.e., White, African American, Hispanic).

In this study, a two-level HLM was used to investigate trajectories of parenting behaviors. In the first level of the HLM, linear and nonlinear changes in parenting behaviors were estimated using ordinary least squares (OLS), in addition to associations between changes in family income (a time-varying primary predictor variable) and changes in parenting behaviors. At this level, change in family income was group means centered so that associations between changes in family income and changes in parenting behaviors were within-person estimates.

In the second level of the HLM, a number of time invariant predictor variables of change in parenting behaviors were estimated. The purpose of the second-level HLM analysis was to examine any cross-level interactions, such as estimating differences in the association between changes in poverty status and changes in parenting behaviors depending on whether the family is never poor, transiently poor, or persistently poor.

RESULTS

The variables ethnicity and income status were significantly related. These two variables were not independent of each other, $\chi^2(4, N = 1289) = 245.6$,

TABLE 1 Family by Income and Ethnicity for Total Sample

Ethnicity	Poverty	Near Poverty	Above Poverty	Total
White	116 (11%)	129 (12%)	789 (76%)	1034 (80%)
African American	99 (57%)	30 (17%)	44 (25%)	173 (13%)
Hispanic	20 (24%)	21 (26%)	41 (50%)	82 (6%)
Total	235 (18%)	180 (14%)	874 (68%)	1289 (100%)

$\chi^2(4, N = 1289) = 245.6, p < .001.$

$p < .001$. In the total sample, 11% of Whites, 57% of African Americans, and 24% of Hispanics were in poverty (see Table 1).

Family Income-to-Needs

The variable family income had changes within the 5 years that were studied. For example, for those families in the 15-months category who were identified as living in poverty in Year 1, only 48% were still in poverty at the 36-months mark. At 1, 6, 15, 24, 36 and 54 months, the family income-to-needs ratio was computed by dividing total family income by the poverty threshold for the appropriate family size (U.S. Census Bureau, 2006).

Initial Status and Change in Family Income to Needs

Two HLMs (Bryk & Raudenbush, 1992) were used to examine the estimate initial status (intercept) and linear change (slope) from 1 month to 54 months for family income, and to test associations between these estimates and the variable of parenting behaviors. The first level of HLM, OLS estimates of initial status and change were calculated for the total population (i.e., fixed effects), and for each individual (i.e., random effects). Hierarchical multiple regression analyses were calculated to assess the relationship of change in income to parenting behaviors after controlling for the influence of race and poverty status.

Preliminary analyses were preformed to ensure that there was no violation of the assumption of normality, linearity, multicollinearity, and homoscedasticity. Homoscedasticity was checked via a scatterplot of standardized residuals and standardized predicted values, and no violation was found. Normality and linearity were also checked with no violations found. The overall model was statistically significant, $p < .001$, $R^2 = .007$, adjusted $R^2 = .006$.

Parenting Behaviors

Each of the four aspects of parenting behavior (sensitivity, stimulation of development, detachment, and negative regard) was regressed separately on the predictor (family income) (see Tables 2 and 3).

TABLE 2 Regression Models Predicting Parenting Behaviors

	Sensitivity			Stimulation		
	<i>r</i>	β	Tolerance	<i>r</i>	β	Tolerance
Race						
African American	.89	.91	1.3	.084	.94	.99
Hispanic	.003*	.16*	.80	.032*	.28*	.62
White	.64	.12	.59	.036*	.12	.52
Poverty status						
Poor	.036	.21	.69	.036	.81	.59
Transiently	1.29	.92	1.32	.89	.56	.23
Never	.92	.83	1.20	.96	.82	1.19

p* < .05TABLE 3** Regression Models Predicting Parenting Behaviors

	Detachment			Negative regard		
	<i>r</i>	β	Tolerance	<i>r</i>	β	Tolerance
Race						
African American	.083	.98	1.2	.078	.91	.97
Hispanic	-.015*	-.16*	.80	-.016*	-.11	.76
White	-.50*	-.18*	.66	-.21*	-.09	.59
Poverty status						
Poor	-.048	-.28**	.62	-.021	-.21*	.52
Transiently	1.30	.96	1.45	1.30	.96	1.45
Never	.98	.87	1.23	.98	.77	1.15

p* < .05*p* < .01

Tables 2 and 3 indicated that African Americans scores did not change significantly along the four parenting behaviors as family income changed. The category of Hispanic was associated with increased sensitivity to distress and stimulation and decreased detachment and negative regard when there was a change from poor to not poor status. For the category of Whites, increased family income was positively associated with stimulation and negatively associated with detachment and negative regard. The average effect of change in income-to-needs and nonpoverty status was positively associated with positive parenting behaviors.

The interaction of change in income and poverty status was significant. Change in income did not have much significance on the positive social behavior of children in nonpoor families. Although it did have a significant impact on the positive parenting behaviors of poor families. These maternal ratings were similar for children from poor and nonpoor families when poor families experienced significant increases in income-to-needs (i.e., when they were approximately 1 *SD* above the mean).

As family income increased, there was a significant decrease in two parenting behaviors: negative regard and detachment. Families who were identified initially as with lower income-to-needs ratios were more likely to experience positive changes in these parenting behaviors. The mean value for the OLS estimates of initial status was 3.07; income-to-needs ratio of about three is suggestive of middle-class families (see Conger et al., 1997). The reliability of these OLS estimates for initial income-to-needs status was .85. The mean value for the OLS estimates of change was .02; this signifies the quantity of change per month, indicating on average, families experienced a positive change of .70 in income-to-needs between 1 month and 54 months.

The results indicate a significant correlation between the variable poor and detachment ($-.048$) and negative regard ($-.021$); p value was found to be less than .05. As families moved from poor to not poor, there was a decrease in detachment and negative regard. For the categories *not poor* or *transiently poor*, no significant findings were found.

For the variable *race*, there were changes in parenting behaviors for White mothers as family income increased. White mothers experienced a change in parental behavior when there was a change in poverty status. For White and Hispanic mothers, there was a change in parental behaviors when they went from poor to not poor. For White mothers, there was a decrease in detachment ($-.50$), a decrease in negative regard ($-.21$), and an increase in stimulation (.036). With respect to Hispanic mothers, there was an increase in sensitivity to distress (.003), an increase in stimulation (.036), and decrease in detachment ($-.015$) and negative regard ($-.016$) when there was a change from poor to not poor. For the race variable *Black*, there was no significant change in parenting behaviors when there was a change in family income. Black mothers did not have significant changes in parenting behaviors among the three categories of different poverty status (never, transiently poor, persistently poor). There was no change in parental behaviors among the three categories of race with families identified as transiently poor.

DISCUSSION

Changes in Family Income and Parenting Behaviors

In regards to our first research question about whether changes in family income predicted changes in parenting behaviors, we found that if family income increased across the first few years of life from infancy to early childhood, more negative aspects of parenting behavior decreased, that is, there was a reduction in maternal detachment (lack of involvement with the child) and negative regard (negative affect directed toward the child). In contrast, change in family income did not predict more positive aspects of parenting behavior that we examined, that is, maternal sensitivity (prompt

and appropriate responses to the child) or stimulation of development (effort at engaging the child in learning). Therefore, the first research question was answered in accord with prediction.

Dallaire and Weinraub (2005) found more relative stability in sensitive and stimulating parenting behaviors than in detached and hostile parenting behaviors: This finding led Dallaire and Weinraub to suggest that negative aspects of parenting behavior might reflect transient state in parents, such as mood. Even though we did not study mood, our research finding was consistent with their suggestion. Changes in family income in this study predicted changes in negative aspects of parenting behavior but bore no relation to changes in positive parenting behavior. This supports the contention that compared to positive aspects of parenting behavior, negative aspects of parenting behavior are more transient, at least in response to family income changes. Our research thus brought light to bear on how changes in family income link to changes in parenting behavior. The short answer is that as family income changes, negative and positive aspects of parenting behavior change unevenly, with increased family income forecasting decreased negative parenting behaviors but not increased positive parenting behaviors. It would of course be interesting to directly investigate the dynamic relationship between mood and various aspects of parenting behavior in future research.

Family Income and Parenting Behavior Changes in Families of Different Poverty Status

As for our second research question about whether the relationship between family income change and parenting behavioral change differed for families of various poverty statuses, we found the answer to be in the affirmative. Compared to nonpoor families, poor families were more likely to experience a reduction in maternal detachment and negative regard (both were negative parenting behaviors) as family income increased.

Further, as persistently poor families moved into the status of nonpoor families, they experienced an increase in maternal sensitivity, stimulation of development (both were positive parenting behaviors), and a decrease in detachment (a negative parenting behavior). This was not the case for transiently poor families. In other words, when family income increased significantly, persistently poor families experienced multiple parenting behavioral changes for the better.

It is within expectation that family income change had a stronger impact on the parenting behaviors of parents in poverty, especially for those who were the most impoverished. As explained in the introduction, compared to nonpoor families, the same absolute amount of family income increase often represents a higher percentage of income increase for poor families. This would be particularly pronounced for persistently poor families compared to

families that were able to move in and out of poverty. This was in accord with Dearing et al.'s (2001) and Garrett et al.'s (1994) research showing that increases in family income were much more important to poor children than children who were nonpoor, in terms of improved home environment and optimized child outcome. Our research expanded on past research in this area showing that the stronger impact of increased family income for poor families may be extended to parenting behaviors. Also, as family income increases, the initial parenting behavioral change may be a reduction in negative aspects of parenting. As income continues to improve to a significant level, an increase in positive aspects of parenting also ensues.

Family Income and Parenting Behavior Changes in Families of Different Ethnicity

The final research question that we had for the current study was any ethnic difference in the relationship between family income change and parenting behavioral change. Indeed, there were observable ethnic differences. When poor White families transitioned into the nonpoor status, they showed increases in the two positive aspects of parenting behavior (i.e., maternal sensitivity and stimulation of cognitive development) and decrease in one negative aspect of parenting behavior (i.e., detachment). When poor Hispanic families improved their income enough to move into the nonpoor status, they exhibited increases in maternal sensitivity and stimulation of cognitive development (both positive aspects of parenting behavior) as well as reductions in detachment and negative regard (both negative aspects of parenting behavior). African American families did not display any significant changes in parenting behaviors as they moved from poor to the nonpoor status. This lack of association between change in family income and change in parenting behaviors in African American families echoed research (e.g., Dotterer et al., 2012; Pachter et al., 2006; Pungello et al., 2009) that showed decreased association between parenting behavior and child outcome in African American families compared to White families.

Taken together, it would appear that the parenting behaviors of Hispanic families change the most (in terms of changes in all four aspects) as family income changes, followed by White families that changed in three aspects. Family income change's lack of impact on African American families was not entirely surprising. When studying a sample of low-income urban families that were primarily African American, Coley et al. (2007) found increased family income associated with welfare reform and maternal employment to have little impact on parenting behaviors, despite improved maternal psychological well-being. Similarly, although using a more ethnically diverse sample, Dunifon and colleagues (2006) found welfare policies unable to predict parenting behavior. Given that our research finding was in accord

with past research (Dotterer et al., 2012; Pachter et al., 2006; Pungello et al., 2009) showing limited relationship between parenting behavior and child outcome in African American families relative to White families, parenting behavior in African American families appears to have unique antecedents and consequences that are worthy of further investigation.

CONCLUSIONS

The finding that increased family income predicted decreased maternal detachment from and negative regard toward the child bears research and practical significance. The next step in this line of inquiry would be the uncovering of mediating variables: Which factors can explain this association? Maternal depression comes up as a viable candidate. The mediating effect of parental depressive symptoms between family income and parenting behavior have been confirmed in studies involving preschool (Mistry, Biesanz, Taylor, Burchinal, & Cox, 2004) and schoolage children (Mistry, Vandewater, Huston, & McLoyd, 2002; Pachter et al., 2006). It is still unknown, however, if depressive symptoms mediate the relationship between family income and different aspects of parenting behavior in a similar way.

Practically, knowing that increased family income predicts decreased detachment and negative regard has policy implications. As social service professionals work with maltreating families in the reduction and elimination of child abuse and neglect on a day-to-day basis, policy makers should bear in mind that macrolevel interventions aimed at increasing the family's income may also make a difference. Because limited studies to date have compared the ethnic difference in the relationship between family income change and parenting behavior change, we are only able to draw tentative conclusions on the complex interplay between income, ethnicity, and parenting. Overall, our findings departed from Mesman et al.'s (2012) study that showed little support for cultural differences in parenting but converged with McLoyd and Smith (2002)'s research and Garcia Coll & Lamberty (1996) and Garcia Coll and Pachter (2002)'s assertion that ethnic minority parenting practices reflected a unique culture, above and beyond socioeconomic situations. In conclusion, how parenting behaviors change along with family income change in families of various ethnicity presents an intriguing research question for the future.

REFERENCES

- Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development*, 37(4), 887–907. doi:10.2307/1126611

- Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence*, 3(11), 255–272.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt. 2), 1–103. doi:10.1037/h0030372
- Baumrind, D. (1972). An exploratory study of socialization effects on Black children: Some Black-White comparisons. *Child Development*, 43(1), 261–267. doi:10.2307/1127891
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55(1), 83–96. doi:10.2307/1129836
- Berger, L. M. (2004). Income, family structure, and child maltreatment risk. *Children & Youth Services Review*, 26(8), 725–748. doi:10.1016/j.childyouth.2004.02.017
- Berk, L. E., & Spuhl, S. T. (1995). Maternal interaction, private speech, and task performance in preschool children. *Early Childhood Research Quarterly*, 10(2), 145–169. doi:10.1016/0885-2006(95)90001-2
- Bradley, R. H., Corwyn, R. F., McAdoo, H. P., & Garcia Coll, C. (2001). The home environments of children in the United States part I: Variations by age, ethnicity, and poverty status. *Child Development*, 72(6), 1844–1867. doi:10.1111/cdev.2001.72.issue-6
- Brody, G. H., & Flor, D. L. (1998). Maternal resources, parenting practices, and child competence in rural, single-parent African American families. *Child Development*, 69(3), 803–816. doi:10.1111/cdev.1998.69.issue-3
- Brooks-Gunn, J., & Markman, L. B. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *The Future of Children*, 15(1), 139–168. doi:10.1353/foc.2005.0001
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Application and data analysis methods*. Newbury Park, CA: Sage.
- Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development*, 72(6), 1832–1843. doi:10.1111/cdev.2001.72.issue-6
- Coley, R., Lohman, B. J., Votruba-Drzal, E., Pittman, L. D., & Chase-Lansdale, P. (2007). Maternal functioning, time, and money: The world of work and welfare. *Children and Youth Services Review*, 29(6), 721–741. doi:10.1016/j.childyouth.2006.12.003
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63(3), 526–541.
- Conger, R. D., Schofield, T. J., & Neppl, T. K. (2012). Intergenerational continuity and discontinuity in harsh parenting. *Parenting: Science and Practice*, 12(2–3), 222–231. doi:10.1080/15295192.2012.683360
- Corwyn, R. F., & Bradley, R. H. (2002). Stability of maternal socioemotional investment in young children. *Parenting: Science and Practice*, 2(1), 27–46. doi:10.1207/S15327922PAR0201_2
- Dallaire, D. H., & Weinraub, M. (2005). The stability of parenting behaviors over the first 6 years of life. *Early Childhood Research Quarterly*, 20(2), 201–219. doi:10.1016/j.ecresq.2005.04.008
- Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, 113(3), 487–496. doi:10.1037/0033-2909.113.3.487

- Dearing, E. (2004). The developmental implications of restrictive and supportive parenting across neighborhoods and ethnicities: Exceptions are the rule. *Journal of Applied Developmental Psychology, 25*(5), 555–575. doi:10.1016/j.appdev.2004.08.007
- Dearing, E., McCartney, K., & Taylor, B. A. (2001). Change in family income-to-needs matters more for children with less. *Child Development, 72*, 1779–1793. doi:10.1111/cdev.2001.72.issue-6
- Dotterer, A. M., Iruka, I. U., & Pungello, E. (2012). Parenting, race, and socioeconomic status: Links to school readiness. *Family Relations, 61*(4), 657–670. doi:10.1111/fare.2012.61.issue-4
- Duncan, G. J., & Brooks-Gunn, J. (2000). Family poverty, welfare reform, and child development. *Child Development, 71*(1), 188–196. doi:10.1111/cdev.2000.71.issue-1
- Dunifon, R., Hynes, K., & Peters, H. (2006). Welfare reform and child well-being. *Children and Youth Services Review, 28*(11), 1273–1292. doi:10.1016/j.childyouth.2006.01.005
- Elder, G. H., Nguyen, T. V., & Caspi, A. (1985). Linking family hardship to children's lives. *Child Development, 56*(2), 361–375. doi:10.2307/1129726
- Feldman, S. S., Rosenthal, D. A., MontReynaud, R., Leung, K., & Lau, S. (1991). Ain't misbehavin': Adolescent values and family environments as correlates of misconduct in Australia, Hong Kong, and the United States. *Journal of Research on Adolescence, 1*, 109–134. doi:10.1207/jra.1991.1.issue-2
- Forehand, R., & Jones, D. J. (2002). The stability of parenting: A longitudinal analysis of inner-city African-American mothers. *Journal of Child and Family Studies, 11*(4), 455–467. doi:10.1023/A:1020935525335
- Garcia Coll, C., & Lamberty, G. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*(5), 1891–1914. doi:10.2307/1131600
- Garcia Coll, C., & Pachter, L. M. (2002). Ethnic and minority parenting. In M. H. Bornstein (Eds.), *Handbook of parenting: Vol. 4: Social conditions and applied parenting* (2nd ed., pp. 1–20). Mahwah, NJ: Lawrence Erlbaum.
- Garrett, P., Ng'andu, N., & Ferron, J. (1994). Poverty experiences of young children and the quality of their home environment. *Child Development, 65*(2), 331–345. doi:10.2307/1131387
- Gutman, L. M., McLoyd, V. C., & Tokoyawa, T. (2005). Financial strain, neighborhood stress, parenting behaviors, and adolescent adjustment in urban African American families. *Journal of Research on Adolescence, 15*(4), 425–449. doi:10.1111/jora.2005.15.issue-4
- Holden, G. W., & Miller, P. C. (1999). Enduring and different: A meta-analysis of the similarity in parents' child rearing. *Psychological Bulletin, 125*(2), 223–254. doi:10.1037/0033-2909.125.2.223
- Jackson, A. P., Brooks-Gunn, J., Huang, C., & Glassman, M. (2000). Single mothers in low-wage jobs: Financial strain, parenting, and preschoolers' outcomes. *Child Development, 71*(5), 1409–1423. doi:10.1111/cdev.2000.71.issue-5
- Keller, H., Borke, J., Yovsi, R., Lohaus, A., & Jensen, H. (2005). Cultural orientations and historical changes as predictors of parenting

- behaviour. *International Journal of Behavioral Development*, 29(3), 229–237. doi:10.1080/01650250544000017
- Kim, H. K., Pears, K. C., Fisher, P. A., Connelly, C. D., & Landsverk, J. A. (2010). Trajectories of maternal harsh parenting in the first 3 years of life. *Child Abuse & Neglect*, 34(12), 897–906. doi:10.1016/j.chiabu.2010.06.002
- Kim, K., & Rohner, R. P. (2002). Parental warmth, control, and involvement in schooling: Predicting academic achievement among Korean American adolescents. *Journal of Cross-Cultural Psychology*, 33(2), 127–140. doi:10.1177/0022022102033002001
- Lee, C., Lee, J., & August, G. J. (2011). Financial stress, parental depressive symptoms, parenting practices, and children's externalizing problem behaviors: Underlying processes. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 60(4), 476–490. doi:10.1111/j.1741-3729.2011.00656.x
- Lim, S., & Lim, B. K. (2004). Parenting style and child outcomes in Chinese and immigrant Chinese families-current findings and cross-cultural considerations in conceptualization and research. *Marriage and Family Review*, 35(3/4), 21–43. doi:10.1300/J002v35n03_03
- Loeber, R., Drinkwater, M., Yin, Y., Anderson, S. J., Schmidt, L. C., & Crawford, A. (2000). Stability of family interaction from ages 6 to 18. *Journal of Abnormal Child Psychology*, 28(4), 353–369. doi:10.1023/A:1005169026208
- Lohaus, A., Keller, H., Ball, J., Voelker, S., & Elben, C. (2004). Maternal sensitivity in interactions with three- and 12-month-old infants: Stability, structural composition, and developmental consequences. *Infant and Child Development*, 13(3), 235–252. doi:10.1002/(ISSN)1522-7219
- McGroder, S. M. (2000). Parenting among low-income African-American single mothers with preschool-age children: Patterns, predictors, and developmental correlates. *Child Development*, 71(3), 752–771. doi:10.1111/cdev.2000.71.issue-3
- McLeod, J. D., & Shanahan, M. J. (1993). Poverty, parenting, and children's mental health. *American Sociological Review*, 58(3), 351–366. doi:10.2307/2095905
- McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, 61(2), 311–346. doi:10.2307/1131096
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185–204. doi:10.1037/0003-066X.53.2.185
- McLoyd, V. C., & Smith, J. (2002). Physical discipline and behavior problems in African American, European American, and Hispanic children: Emotional support as a moderator. *Journal of Marriage and Family*, 64, 40–53. doi:10.1111/jomf.2002.64.issue-1
- Mesman, J., van Ijzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2012). Unequal in opportunity, equal in process: Parental sensitivity promotes positive child development in ethnic minority families. *Child Development Perspectives*, 6(3), 239–250. doi:10.1111/cdep.2012.6.issue-3
- Middlemiss, W. (2003). Brief report: Poverty, stress and support: Patterns of parenting behavior among lower income Black and lower income White mothers. *Infant and Child Development*, 12(3), 293–300. doi:10.1002/icd.307

- Miller, J. E., & Davis, D. (1997). Poverty history, marital history, and quality of children's home environments. *Journal of Marriage and the Family*, *59*, 996–1007. doi:10.2307/353798
- Mistry, R. S., Biesanz, J. C., Chien, N., Howes, C., & Benner, A. D. (2008). Socioeconomic status, parental investments, and the cognitive and behavioral outcomes of low-income children from immigrant and native households. *Early Childhood Research Quarterly*, *23*(2), 193–212. doi:10.1016/j.ecresq.2008.01.002
- Mistry, R. S., Biesanz, J. C., Taylor, L. C., Burchinal, M., & Cox, M. J. (2004). Family income and its relation to preschool children's adjustment for families in the NICHD study of early child care. *Developmental Psychology*, *40*, 727–745. doi:10.1037/0012-1649.40.5.727
- Mistry, R. S., Vandewater, E. A., Huston, A. C., & McLoyd, V. C. (2002). Economic well-being and children's social adjustment: The role of family process in an ethnically diverse low-income sample. *Child Development*, *73*, 935–951. doi:10.1111/cdev.2002.73.issue-3
- Newland, R. P., Crnic, K. A., Cox, M. J., & Mills-Koonce, W. (2013). The family model stress and maternal psychological symptoms: Mediated pathways from economic hardship to parenting. *Journal of Family Psychology*, *27*(1), 96–105. doi:10.1037/a0031112
- NICHD Early Child Care Research Network. (2001). Nonmaternal care and family factors in early development: An overview of the NICHD study of early child care. *Journal of Applied Developmental Psychology*, *22*, 457–492. doi:10.1016/S0193-3973(01)00092-2
- NICHD Early Child Care Research Network. (2002). Child-care structure -> process -> outcome: Direct and indirect effects of child-care quality on young children's development. *Psychological Science*, *13*(3), 199–206. doi:10.1111/1467-9280.00438
- Nievar, M. A., & Luster, T. (2006). Developmental processes in African American families: An application of McLoyd's theoretical model. *Journal of Marriage and Family*, *68*(2), 320–331. doi:10.1111/jomf.2006.68.issue-2
- Pachter, L. M., Auinger, P., Palmer, R., & Weitzman, M. (2006). Do parenting and the home environment, maternal depression, neighborhood, and chronic poverty affect child behavioral problems differently in different racial-ethnic groups? *Pediatrics*, *117*(4), 1329–1338. doi:10.1542/peds.2005-1784
- Pungello, E. P., Iruka, I. U., Dotterer, A. M., Mills-Koonce, R., & Reznick, J. S. (2009). The effects of socioeconomic status, race, and parenting on language development in early childhood. *Developmental Psychology*, *45*(2), 544–557. doi:10.1037/a0013917
- Steinberg, L. (2001). We know some things: Parent-adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence*, *11*(1), 1–19. doi:10.1111/1532-7795.00001
- Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research on Adolescence*, *1*, 19–36.

- Taylor, Z. E., Larsen-Rife, D., Conger, R. D., Widaman, K. F., & Cutrona, C. E. (2010). Life stress, maternal optimism, and adolescent competence in single mother, African American families. *Journal of Family Psychology, 24*(4), 468–477. doi:10.1037/a0019870
- Trentacosta, C. J., Hyde, L. W., Shaw, D. S., Dishion, T. J., Gardner, F., & Wilson, M. (2008). The relations among cumulative risk, parenting, and behavior problems during early childhood. *Journal of Child Psychology and Psychiatry, 49*(11), 1211–1219.
- U.S. Census Bureau. (2006). *Poverty thresholds*. Retrieved from <http://www.census.gov/hhes/www/poverty/definitions.html#ratio>.
- Verhoeven, M. M., Junger, M. M., van Aken, C. C., Deković, M. M., & van Aken, M. G. (2007). A short-term longitudinal study of the development of self-reported parenting during toddlerhood. *Parenting: Science and Practice, 7*(4), 367–394. doi:10.1080/15295190701665672
- Votruba-Drzal, E. (2003). Income changes and cognitive stimulation in young children's home learning environments. *Journal of Marriage and Family, 65*, 341–355. doi:10.1111/j.1741-3737.2003.00341.x
- Wang, C. C., & Phinney, J. S. (1998). Differences in child rearing attitudes between immigrant Chinese mothers and Anglo-American mothers. *Early Development and Parenting, 7*(4), 181–189. doi:10.1002/(SIC)1099-0917(199812)7:4<181::AID-EDP169>3.0.CO;2-Y
- Winer, B. J. (1971). *Statistical principles in experimental design* (2nd ed.). New York, NY: McGraw-Hill.

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