

Unequal in Opportunity, Equal in Process: Parental Sensitivity Promotes Positive Child Development in Ethnic Minority Families

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ABSTRACT—*Most studies on parental sensitivity are based on Western samples, and the cross-cultural applicability of this construct has been subject to debate. This article reports on a systematic literature review on observational studies of parental sensitivity in ethnic minority families with young children. It shows that parental sensitivity is generally lower in ethnic minority families than in majority families. The evidence suggests that the main cause for this difference is family stress due to socioeconomic disadvantage. The review found little evidence for cultural explanations. Most importantly, the review shows that parental sensitivity is related to positive child development in ethnic minority families. Interventions attempting to improve ethnic minority children's well-being should focus on both reducing family stress and enhancing parental sensitivity.*

KEYWORDS—*sensitivity; parenting; ethnic minority families; socioeconomic status; family stress*

Inspired by attachment theory, Mary Ainsworth was the first to provide a detailed description of maternal sensitivity, which she defined as mothers' ability to perceive child signals, to interpret these signals correctly, and to respond to them promptly and appropriately (Ainsworth, Bell, & Stayton, 1974). Other theoretical frameworks beyond attachment-related research have adopted the construct (e.g., Dunham & Dunham, 1990; Feldman,

Gordon, Schneiderman, Weisman, & Zagoory-Sharon, 2010; Hane & Fox, 2006). There is ample empirical evidence that maternal sensitivity is causally related to positive child development, including secure attachment (e.g., Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003), self-regulation (e.g., Eisenberg et al., 2001), social functioning (e.g., Kochanska, 2002), and cognitive competence (e.g., Tamis-LeMonda, Bornstein, & Baumwell, 2001). The vast majority of studies on maternal sensitivity and its effects on child development have been conducted in Western countries with samples drawn from ethnic majority families. In this article, we provide a systematic literature review of studies examining parental sensitivity toward 0- to 5-year-olds in ethnic minority families, focusing on mean-level differences with majority parents, associations with socioeconomic factors, and associations with child outcomes.

Although most studies on sensitivity are from Western samples, the concept of maternal sensitivity actually originated in Africa. Mary Ainsworth's observations in Uganda dating back to the mid-1950s (Ainsworth, 1967) suggest that the construct's validity may not be limited to Western cultures and ethnic groups. Availability and proximity are the most basic components of sensitivity and probably represent the most universally applicable aspect, as they are necessary for making sure that an infant or a child is kept safe and gets fed when it signals hunger (Keller, 2000). The importance of prompt responding also seems to be rooted in a common human characteristic: the ability to detect contingencies between one's own behavior and environmental events (Tarabulsky, Tessier, & Kappas, 1996). Indeed, the level of maternal contingency in mother-infant interactions has been found to be very similar between different cultural groups, even though the type of contingencies may be quite different (Kärtner, Keller, & Yovsi, 2010). Correct interpretation of signals refers to the (perceived) needs of the child, and parental ideas about what children need are certainly not universal. Families from a collectivistic cultural background value the com-

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munity and obedience more than the individual and autonomy (Kagitcibasi, 2007; Keller & Otto, 2009). These cultural values may be less conducive to a sensitive parenting style that consists of positive responsiveness to children's individual needs, which would imply that the sensitivity construct is biased in favor of more individualistic Western norms and values.

Another important issue is the generalizability of the expected consequences of parental sensitivity to different ethnic or cultural groups. Two main viewpoints are distinguishable. The *no group difference hypothesis* states that although there may be mean-level differences in certain behaviors between cultural groups, culturally specific experiences do not alter associations in developmental processes (Rowe, Vazsonyi, & Flannery, 1994). According to the *group differences hypothesis*, the relation between family characteristics and child behavior problems may differ across ethnic groups (Ogbu, 1981). In our literature review, we will attempt to determine which of these two hypotheses is most applicable to the case of parental sensitivity in early childhood.

In addition to cultural factors, research has shown that factors related to family stress can influence parental sensitivity. When parents are under a lot of stress, their ability to provide sensitive and positive parenting is compromised. The Family Stress Model (Conger et al., 1992, 1993) describes just that mechanism: Socio-economic strains lead to family stress, which in turn leads to non-optimal parenting and poor child outcomes. The model does not specifically include ethnic minority status as a factor, but compared to majority families, minorities in various countries have been found to experience more family stressors such as higher rates of poverty, teenage motherhood, and single parenthood (e.g., Mather, 2010; National Poverty Center, 2009; Platt, 2007; Sociaal en Cultureel Planbureau, 2009). In turn, all of these factors have been shown to adversely affect parenting competence (e.g., Berlin, Brady-Smith, & Brooks-Gunn, 2002; McLoyd, 1990; Mistry, Biesanz, Chien, Howes, & Benner, 2008). Thus, any association between minority status and sensitivity could be (partially) mediated by family stress indicators such as low socio-economic status (SES). In addition, being an ethnic minority may be related to daily stressors that go beyond those due to low SES. Factors such as acculturation, language difficulties, and discrimination contribute to the experience of stress (Berry, 1997) and thus potentially to lower levels of sensitivity.

In the next section, we present the results of our systematic review of the literature on parental sensitivity and its outcomes in ethnic minority families to discern whether these assumptions are empirically valid.

LITERATURE REVIEW

We searched the Web of Science database (January 12, 2011) using the following combination of keywords: (cultur* OR ethnic* OR race OR racial OR minority OR minorities OR migrant OR immigrant OR Hispanic OR Latino OR Mexican OR African-American OR Chinese-American OR Asian OR Native-

American) AND (sensitiv* OR responsive* OR contingen* OR synchron* OR warmth OR "positive parenting" OR "maternal behavior") AND (parent* OR mother OR maternal OR father OR paternal) AND (child* OR toddler OR preschool* OR infant* OR baby). Our inclusion criteria were (a) the sample includes at least one ethnic minority group, (b) the study targeted children aged 0–5 years, (c) sensitivity is measured through standardized observations, (d) the sensitivity construct includes at least the aspect of appropriate responsiveness, and (e) the article reports results on at least one of the following topics: (1) comparison of sensitivity means between majority and minority groups or (2) association between sensitivity and child outcomes separately for minorities (or minority status tested as moderator). The rationale for Criterion b is that parental sensitivity has been primarily validated in early childhood. We included Criterion c because parents simply cannot be expected to report reliably on something as complex as their own sensitivity. For instance, insensitive parents are unlikely to be aware of the fact that they fail to notice or incorrectly interpret their children's signals (van IJzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004). We included Criterion d to stay close to Mary Ainsworth's original definition of sensitivity. Parenting variables such as warmth and simple responsiveness regardless of appropriateness do not capture the link with child signals, the key component of Ainsworth's conceptualization of sensitivity. Using the criteria listed above, we found 39 publications representing 34 individual studies.

The first thing we noticed is that the vast majority had been conducted in the United States (27 studies). Even more surprising was the fact that the next largest supplier of relevant studies was the Netherlands (6 studies). And finally, we found one Canadian study that fit our criteria. Even with less stringent criteria regarding construct, instrument, and age, very few studies outside the United States and the Netherlands have investigated parenting in minority families. Some examples include questionnaire studies about other aspects of parenting in Turkish minorities in Australia (Yagmurlu & Sanson, 2009) and Belgium (Gungor & Bornstein, 2010), and studies on school-aged children from Indian minority families in Great Britain that did not focus specifically on sensitivity (Atzaba-Poria & Pike, 2008; Deater-Deckard, Atzaba-Poria, & Pike, 2004). But in general, more lenient criteria would have simply increased the number of U.S.-based studies. Some of the search keywords were, of course, specific to the U.S. (such as African American). We tried some extra searches with common ethnic minorities in European countries (such as Turkish, Moroccan, and Algerian), but this yielded no additional studies. Moreover, the terms *immigrant* and *minority* would have picked up on such studies even without specifying ethnic groups.

Because the backgrounds of minorities in the United States and the Netherlands are very different, we present the studies from each country in separate tables. We will discuss the Canadian study in the text after discussing the U.S. studies.

Studies From the United States

Table 1 shows the 27 studies (30 publications) on maternal sensitivity in ethnic minority families. Most included African American families, Latino American families, or both. Some also included other minority groups, such as Asian Americans and Native Americans (e.g., Bernstein, Harris, Long, Iida, & Hans, 2005; Shannon, Tamis-LeMonda, London, & Cabrera, 2002) or unspecified other minorities (e.g., Kiang, Moreno, & Robinson, 2004), but the sample sizes for these “other” ethnicities were generally too small to report on. Virtually all studies reporting on group comparisons show lower sensitivity in African Americans than in European Americans. Latino Americans seem to be somewhere in between these two groups. The one study that had a large enough subsample of Chinese Americans showed that they were even lower on maternal sensitivity than African Americans (Bernstein et al., 2005).

Table 1 also shows that in almost all studies, ethnic minority families had lower SES backgrounds than majority families, and that low SES was related to lower sensitivity. Four studies corrected for SES when comparing ethnic groups on sensitivity, after which group differences diminished but remained significant. However, the three studies that found no differences in sensitivity between ethnic groups were based on carefully selected samples, which made the minority and majority groups more comparable in terms of family risk for maladaptive parenting (e.g., teenage mothers in Chaudhuri, Easterbrooks, & Davis, 2009; families at or below the poverty line in Kogan & Carter, 1996; and highly involved fathers in Shannon et al., 2002). Importantly, in studies whose samples came from diverse socioeconomic backgrounds, SES indicators were generally more strongly related to maternal sensitivity than ethnicity was (e.g., Barnett, Shanahan, Deng, Haskett, & Cox, 2010; Gregory & Rimm-Kaufman, 2008). Similarly, data from the NICHD Early Childcare Research Network (NICHD-SECCYD) showed that differences in sensitivity between African American and White families dramatically decreased when these families were matched on income (Bakermans-Kranenburg, van IJzendoorn, & Kroonenberg, 2004). Other studies suggest that the remaining effect drops substantially again when accounting for other family stressors such as teenage and single parenthood (Chaudhuri et al., 2009; Riksen-Walraven & Zevalkink, 2000).

Table 1 also shows the associations between parental sensitivity and child outcomes. Overall, the results suggest that, just as in Western majority families, parental sensitivity in minority families is related to positive child outcomes in several domains, including cognitive, social, and behavioral development. Bernstein et al. (2005) also reported significant associations between maternal sensitivity and child positive involvement for Chinese American families. Almost all studies included only mothers, but three that examined sensitivity of ethnic minority fathers reported significant associations with positive child behaviors (Kelley, Smith, Green, Berndt, & Rogers, 1998; Shannon, Tamis-LeMonda, & Cabrera, 2006; Shannon et al., 2002). Thus,

despite the low SES and high family stress common to ethnic minorities, parental sensitivity contributes to positive child development in these families.

We found one Canadian study fit our inclusion criteria. Letourneau, Hungler, and Fisher (2005) observed 12 aboriginal and 48 nonaboriginal mothers from an impoverished urban sample in a problem-solving task with their 1- to 36-month-old children, using the sensitivity subscale of the NCAST as the observation instrument. Their results showed similar levels of maternal sensitivity in the two ethnic groups, and no group differences in SES. This finding supports the hypothesis that family stress is a stronger predictor of sensitivity than either ethnicity or minority status.

Studies From the Netherlands

Before presenting the review results, we would like to provide some background about ethnic minorities in the Netherlands. The three largest ethnic minority groups originate from Turkey, Morocco, and Surinam, and all three can be considered non-Western. The Turks and Moroccans came to the Netherlands as (invited) labor migrants in the 1960s and 1970s and share an Islamic religious background. Most of these migrants were young men from rural areas and had received little or no education in their country of origin. They came to the Netherlands to make money and intended to go back to their country of origin, but many ended up staying and arranging for their wives (and sometimes children) to emigrate. The Surinamese share a diverse Caribbean cultural and ethnic background with other former Dutch West Indies colonies, including peoples from African, Indian, and Javanese descent. Most migrants from Surinam moved to the Netherlands after Surinam became independent in 1975, but migration continued over the next two decades because of political and economic instability. As in many European countries, non-Western ethnic minorities are overrepresented in the lowest socioeconomic classes in the Netherlands. SES tends to be lower for the Turks and Moroccans than for the Surinamese, possibly because the latter are historically more familiar with Dutch culture and language because of the colonial past.

Table 2 presents the results of the six observation studies (eight publications) examining sensitivity in ethnic minority families with young children in the Netherlands. We found only studies including Turkish and/or Surinamese minorities, and none with Moroccans. Each of the six studies examined only maternal and not paternal sensitivity. Overall, both Surinamese and Turkish mothers were observed to show lower levels of sensitivity than native Dutch mothers. These findings were generally also found after controlling for SES indicators, but substantially diminished (van IJzendoorn, 1990; Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, and Linting, 2010). When matching ethnic groups on SES, some differences disappeared altogether (Bus, Leseman, & Keultjes, 2000). In their study on Indonesian, Japanese, Dutch, and Surinamese-Dutch families,

Table 1
Overview of Studies Examining Parental Sensitivity in Ethnic Minorities in the United States

Study	Sample characteristics			Sample sizes per group ^a			Group comparisons			
	Type of sample	Child age ^b	EA	AA	LA	Sensitivity measure ^{c,d}	Minority on sensitivity ^e	Minority on SES	SES on sensitivity	Child outcomes in minority group(s) ^f
Bakermans-Kranenburg et al. (2004)	NICHD representative	6+15+24	1,002	142	0	NICHD (PS)	AA < EA	AA < EA	Low < High	Secure attachment
Barnett et al. (2010)	Diverse SES	6+12+24	85	100	0	NICHD (FP+PS)	AA < EA	AA < EA	Low < High	Lower internalizing problems Language skills
Berlin, Brooks-Gunn, Spiker, & Zaslow (1995)	Low-birthweight premature infants	30	204	282	0	SENS (PS)	—	—	—	—
Spiker et al. (1993)	Eligible for Early Head Start	30	273	410	0	NICHD (FP)	AA < EA AA < LA	—	Low < High Low < High	— —
Berlin et al. (2002)	Head Start	14	704	595	403	NICHD (FP)	AA < LA < EA	—	—	—
Bernstein et al. (2005)	Head Start	50	158	290	120	PCOG (VAR)	AA < LA = EA	AA < LA = EA	Low < High	Positive involvement Social skills (LA only) Emotion regulation
Bocknek et al. (2009)	Eligible for Early Head Start	14+24+36	0	803	0	NICHD (FP)	—	—	Low < High	—
Burchinal, Vernon-Feagans, Cox, and Investigators, Key Family Life Project (2008)	Representative	6+15	816	360	0	NICHD (FP)	AA < EA	AA < EA	Low < High	—
Chaudhuri et al. (2009)	Teenage at time of child's birth	14+20	141	41	131	EAS (FP+PS)	AA = LA = EA	—	Low < High	—
Contreras et al. (1999)	Teenage at time of child's birth	3-34	0	0	49	SENS (VAR)	—	—	—	Positive behavior
Finger et al. (2009)	High-risk urban housing projects	16-21	0	79	0	PCOG (FP)	—	—	—	Secure attachment
Fracasso et al. (1994)	Disadvantaged urban	13	0	0	50	AINS (FP)	—	—	—	Secure attachment
Goodman et al. (1998)	Teenage at time of child's birth	46	0	93	0	CARE (FP)	—	—	—	Secure attachment
Gregory and Rimm-Kaufman (2008)	Diverse SES	60	202	136	0	Erickson (PS)	AA < EA	AA < EA	Low < High	Future high school graduation
Howes and Obregon (2009)	Eligible for early head start	8+14+24+36	0	0	78	EAS (FP)	—	—	—	Positive involvement

Table 1
Continued

Study	Sample characteristics		Sample sizes per group ^a			Group comparisons				Child outcomes in minority group(s) ^f	
	Type of sample	Child age ^b	EA	AA	LA	Sensitivity measure ^{c,d}	Minority on sensitivity ^e	Minority on SES	SES on sensitivity		
Howes and Guerra (2009)			0	0	83		—	—	—	Secure attachment (only at 14 months)	—
Huang et al. (2005)	Diverse in SES	16–18	234	93	48	P/CIS (FP)	AA < LA	—	Low < High		
Kelley et al. (1998)	Community sample of fathers	12–36	0	54	0	CARE (FP)	—	—	—	Motor development	
Kiang et al. (2004)	Low-income, no health insurance	12–15	79	46	125	EAS (FP)	—	—	—	Empathy	
Kogan and Carter (1996)	At or below poverty line	4	7	20	2	EAS (SFP)	AA = LA	AA = LA	ns	Responsiveness	
Kolobe (2004)	Community sample	9–12	0	0	62	NCAST (PS)	—	—	—	Motor development	
Propper et al. (2007)	50% below poverty line	6+12	72	97	0	NICHD (FP)	AA < EA	AA < EA	—	Lower internalizing and externalizing problems	
Pungello et al. (2009)	Groups matched for SES	12+24	73	73	0	NICHD (PS)	AA < EA	AA = EA	—	Growth in language abilities	
Sessa et al. (2001)	Diverse in SES	60	53	34	0	SENS (VAR)	AA < EA	—	Low < High		
Shannon et al. (2002)	Highly involved fathers	23–30	2	19	41	SENS (FP)	AA = LA	—	ns	Playful and social behavior	
Shannon et al. (2006)	Low-income fathers	8+16	11	27	34	SENS (FP)	—	—	Low < High	Social behavior	
Wallace et al. (1998)	Community child care	12	0	92	0	MULTI-PASS (FP)	—	—	Low < High	Receptive communication	
Roberts et al. (2005)		24+36+48	0	72	0		—	—	Low < High	Language and literacy	
Whiteside-Mansell et al. (2003)	NICHD, diverse in SES	36	953	123	0	SENS (FP)	AA < EA	AA < EA	—	Lower internalizing problems	
Worobey et al. (2009)	Low-income, formula feeding	3+6	0	23	73	NCAST (FD)	—	—	—	Less extreme weight gains	

^aEA = European American; AA = African American; LA = Latin American. ^bAge in months. ^cInstrument: CARE = Child-Adult Relationship Experimental Index (sensitivity scale; Crittenden, 1988); EAS = Emotional Availability Scales (sensitivity scale; Birnbaum, 2008); Erickson = Erickson Scales for mother-child interaction (supportive presence scale; Erickson et al., 1985); Ainsworth = Ainsworth Scales of Sensitivity (sensitivity scale; Ainsworth et al., 1974); MULTI-PASS (sensitivity scale; Marfo, 1992); NCAST = Nursing Child Assessment Satellite Training Parent-Child Interaction scales (sensitivity scale; Barnard, 1994; Summer & Spitz, 1994); NICHD = National Institute of Child Health and Human Development, Study of Early Child Care (1999; various combinations of subscales), P/CIS = Parent/Caregiver Involvement Scale (appropriateness scale; Farran et al., 1987); PCOC = Parent-Child Observation Guide (sensitive responsiveness scale; Bernstein et al., 1987); SENS = instrument not specified. ^dInteraction setting: FP = Free play; PS = problem solving; FD = feeding; VAR = combination of a variety of settings. ^eUnderlined comparisons are controlled for SES, either statistically or through selective or matched sampling. ^fOnly significant outcomes are listed.

Table 2
Overview of Studies Examining Parental Sensitivity in Ethnic Minorities in the Netherlands

Study	Sample characteristics	Sample sizes per group ^a				Child age ^b	Sensitivity measures ^{c,d}	Group comparisons			Child outcomes in minority group(s) ^f
		D	T	S	Minority and sensitivity ^e			Minority and SES	SES and Sensitivity		
van IJzendoorn (1990)	Surinamese immigrants, ethnically heterogeneous	39	0	26	18	Ainsworth (FP)	<u>S < D</u>	S < D	—	Secure attachment	
Leseman and De Jong (1998)	Varied in SES, minorities are immigrants	47	19	23	48	Erickson (PS+BR)	T/S < D	T < D/S	Low < High	Literacy (combined samples)	
Bus et al. (2000)	Groups matched to SES of Turkish immigrant group	19	19	19	48	Erickson (BR)	<u>S < D/T</u>	T = S = D	—	—	
Leseman and Van den Boom (1999)	Dutch low/mid-SES (DL/DM) versus immigrants	DL = 31 DM = 44	28	27	36	Erickson (PS+BR)	<u>-T/S < DL < DM</u> <u>-T < S < D < DM</u>	—	Low < High	Cognitive competence	
Riksen-Walraven et al. (1996)	Low SES	0	0	36	18	Erickson (FP+PS)	—	—	—	Cognitive competence	
Riksen-Walraven and Zevalkink (2000)	Dutch group all low SES	26	0	38	18	Erickson (PS)	<u>S < D</u>	S = D	—	Cognitive competence	
Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, and Linting (2010)	Second-generation Turkish, child at risk	70	70	0	24	Erickson (PS)	<u>T < D</u>	T < D	Low < High	—	
Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, and Linting (2010b)	Second-generation Turkish	0	94	0	0	—	—	—	—	Child aggression	

^aD = Dutch majority; T = Turkish minority; S = Surinamese minority. ^bChild age in months. ^cFP = Free Play; PS = Problem Solving (teaching task); BR = Joint Book Reading. ^dAinsworth = Ainsworth Scales of Sensitivity (sensitivity subscale, Ainsworth et al., 1974); Erickson = Erickson Scales for mother-child interaction (several combinations of subscales; Erickson et al., 1985). ^eUnderlined comparisons are controlled for SES, either statistically or through selective or matched sampling. ^fOnly significant outcomes are listed.

Zevalkink and Riksen-Walraven (2001) found socioeconomic factors to have a stronger impact on the quality of parenting than cultural factors. Higher prevalence of maltreatment of children in ethnic minority groups such as the Surinamese and the Turkish have also been found to completely disappear after correcting for SES (Euser, van IJzendoorn, Prinzie, & Bakermans-Kranenburg, 2011). SES indicators are also related to maternal sensitivity within the minority groups in the U.S. (e.g., Bocknek, Brophy-Herb, & Banerjee, 2009; Roberts, Jurgens, & Burchinal, 2005) and the Netherlands (Leseman & van den Boom, 1999; Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, and Linting, 2010), illustrating the importance of socioeconomic context to explain not only between-group differences, but also within-group differences in maternal sensitivity. In addition, Turkish minority mothers in the Netherlands reported more daily stress compared to Dutch majority mothers, regardless of SES (Yaman, Mesman, van IJzendoorn, & Bakermans-Kranenburg, 2010a).

A summary of the results of Dutch studies addressing child outcomes of sensitivity appears in the last column of Table 2. Overall, sensitivity toward young children is related to positive child outcomes in the cognitive and social-behavioral domains in Turkish and Surinamese ethnic minority families, just as in majority families from Western cultures.

DISCUSSION

The literature review shows that ethnic minority parents display significantly lower levels of sensitivity toward their young children than do majority families. Given the substantial differences in ethnic and cultural background between the minority groups examined in the United States and the Netherlands, and the fact that the results were found in both immigrant and nonimmigrant minorities, it seems unlikely that cultural factors are responsible for these differences. The evidence points more toward a central role for social and economic stress in sensitivity differences between minority and majority groups.

We found clear evidence for substantial covariation between minority status and low SES, and both predict lower parental sensitivity. When we control for SES indicators through sampling or otherwise, the link between minority status and sensitivity disappears or becomes substantially smaller. This finding is consistent with the family stress model (Conger et al., 1992, 1993), which describes economic hardship as a major contributor to maladaptive parenting. Indeed, several empirical studies have shown that the family stress model is also applicable to ethnic minority families, including African Americans (Conger et al., 2002) and Chinese Americans (Benner & Kim, 2010).

Our review adds to these findings by showing that the model also applies specifically to socioeconomic effects on parental sensitivity in early childhood. It is, however, unclear which aspect of SES is most salient to parental sensitivity. There is some evidence that parental education is more strongly related

to sensitivity than income is (e.g., Berlin et al., 2002), but other studies find similar associations of education and income with sensitivity (e.g., Chaudhuri et al., 2009; Huang, Caughy, Genevro, & Miller, 2005). Also, several studies that correct for parental educational level still find differences in sensitivity between ethnic groups (e.g., Spiker, Ferguson, & Brooks-Gunn, 1993; van IJzendoorn, 1990; Yaman, Mesman, van IJzendoorn, Bakermans-Kranenburg, & Linting, 2010b), whereas a study that included only families below the poverty line failed to find such differences (Kogan & Carter, 1996). Thus, the different components of SES may have their own significant contribution to parental sensitivity, which makes it important to examine multiple SES components and to carefully record each of their independent and cumulative effects on parenting quality.

In addition to SES, several other variables are relevant to parenting in ethnic minority families, such as stress associated with acculturation, migration, illegal status, and discrimination. There is evidence from nonobservational studies (mostly with adolescents) that higher levels of acculturation and a smaller acculturation gap between parents and children are related to more positive parenting in the United States (e.g., Leidy, Guerra, & Toro, 2010; Liu, Lau, Chen, Dinh, & Kim, 2009) and Canada (e.g., Costigan & Koryzma, 2011). In the Netherlands, Surinamese mothers who had been in the country longer tended to be less anxious about childrearing and more sensitive than those who had arrived more recently (van IJzendoorn, 1990), suggesting a role for acculturation in alleviating stress and enhancing parenting quality. Further, Turkish families who migrated to the United Kingdom report less positive parenting and more child problems than both migrant and nonmigrant Turkish families living in Turkey (Daglar, Melhuish, & Barnes, 2011), suggesting that minority status and cross-country migration, not ethnicity, are important to family functioning. Even though acculturation and stress related to migration and illegal status may play a role in parental sensitivity, it cannot provide the main explanation for our review findings, as substantially lower levels of sensitivity were also found in African American parents, who are most often born in the United States and have lived there for generations.

Family structure may provide another set of potential explanatory variables in the association between ethnic minority status and parental sensitivity. As we noted earlier, single motherhood is common in some ethnic groups, which in turn is related to lower maternal sensitivity. One of the Dutch studies demonstrated that Surinamese mothers without a partner (very common in this population) showed lower levels of sensitivity than Dutch mothers, but Surinamese mothers with a partner did not differ (Riksen-Walraven & Zevalkink, 2000). This shows the importance of partner support in general and the role of fathers in particular. Our review showed that paternal sensitivity is also related to positive child outcomes in ethnic minorities (e.g., Shannon et al., 2002; Shannon et al., 2006). In addition, there is evidence that positive involvement of fathers and high mother-father relationship quality may buffer against the negative effects

of maternal risk (e.g., Cabrera, Shannon, Mitchell, & West, 2009; Howard, Lefever, Borkowski, & Whitman, 2006).

Similarly, positive sibling relations have been found to protect against unsupportive parenting in an ethnically diverse sample, with evidence that sibling support was particularly beneficial to Hispanic American children (Milevsky & Levitt, 2005). In African American and Latino American families, grandparents may also play a substantial caregiving role. However, the literature shows that grandparental involvement can influence parents' well-being both positively and negatively, which may depend partly on the specific ethnic group (Greenfield, 2011; Smith & Drew, 2002).

Although family stress rather than minority status itself seems to be the most proximal predictor of lower sensitivity, the fact remains that because minority families face many more sources of stress than majority families do, their children are substantially more likely to experience insensitive parenting. And as our review also showed, this in turn is a risk for problematic child outcomes in minority groups as well. The good news is that insensitive parenting can be changed (Bakermans-Kranenburg et al., 2003). Given our review finding that parental sensitivity is just as important to ethnic minority children's development as it is for majority children, such interventions could also make a difference in these families.

One may argue that the only reason parental sensitivity predicts positive child outcomes in minority families is because this parenting style is necessary to succeed in a Western society, even for non-Western minorities. Several studies in non-Western countries contradict this interpretation: They have found significant and meaningful associations of maternal sensitivity with child outcomes such as quality of attachment (van IJzendoorn & Sagi-Schwartz, 2008). In addition, a recent study in Turkey showed that maternal sensitive responsiveness is related to positive emotion regulation in preschoolers (Yagmurlu & Altan, 2010). Thus, at least for Turkish minorities in the Netherlands, the value of maternal sensitivity for positive child development does not seem to come from the majority cultural demands of the Western host culture. This is consistent with evidence that mothers from a number of different cultures prefer children to behave in accordance with attachment theory, using their mothers as a secure base from which to explore and as a haven of safety and comfort when they need it (Posada et al., 1995).

FUTURE DIRECTIONS

One of the things that struck us most in the process of reviewing the literature is the small number of countries where studies on sensitivity in minority families have been conducted. We expected that the United States would be the largest supplier, but we did not expect that we would identify only two other countries with relevant studies. Even with less stringent criteria, we found extremely few studies outside of these countries. Because the societal position and cultural circumstances of

ethnic minority families can differ substantially depending on the country they live in, it is crucial to know whether minority status and related SES indicators show the same associations with sensitive parenting in different countries.

It is also important to note that the studies from the United States focus almost exclusively on African American and Hispanic families. There are a few observational studies on sensitivity in Asian minority families and none for other ethnic minority groups. The one study of Asian minorities that met the criteria for our review showed lower levels of sensitivity in Chinese Americans than in other minorities and a significant association between sensitivity and positive child outcome (Bernstein et al., 2005). A study of East Asian minorities in Canada (mostly Chinese) failed to meet the age criteria (mean age = 71 months; Chan, Penner, Mah, & Johnston, 2010) but showed that maternal sensitivity was related to *more* child behavior problems. It is important to note that the study by Bernstein et al. (2005) included 115 Chinese Americans, whereas the study by Chan et al. (2010) included an ethnically heterogeneous sample of only 23 East Asian Canadians. In view of these conflicting findings, we looked for observational studies of maternal sensitivity in China (no age restrictions) and found only one. In that study, observed maternal warmth (a variable that included responsiveness to child's needs) was related to lower levels of child aggression in 4-year-olds (Chen, Wu, Chen, & Cen, 2001), providing at least some evidence that parental sensitivity is related to positive child outcomes in nonmigrant Chinese families. In addition, it seems likely that our main findings can be generalized across ethnic groups, given that we found similar results in the Dutch setting with very different ethnic minority groups. Further, ethnicity itself does not seem to be the issue, but rather low SES and stressful experiences in these groups.

The tables show a substantial number of significant associations between parental sensitivity and child outcomes. Several articles also reported some null findings. We do not report these in the table explicitly because the same is true for some analyses of sensitivity and child outcomes in majority samples. For example, Bernstein et al. (2005) found no associations between observed maternal sensitivity and several child outcomes in any of the four ethnic groups they examined (including European American), except for one significant correlation in the Latino sample. For a balanced view of the evidence, a meta-analysis is required that includes all findings (including null results) and analyses them quantitatively to yield an overall effect size. Another important point is that the real proof for a major role of parental sensitivity in the development of positive child outcomes in different ethnic groups would have to come from intervention studies with randomized controlled designs aimed at fostering positive child outcomes through enhancing parental sensitivity (such as the VIPP-SD by Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2008) in ethnic minority families.

Mothers were the focus of the vast majority of the studies we reviewed. We were happy to find three studies that included

fathers (Kelley et al., 1998; Shannon et al., 2002; Shannon et al., 2006), and all showed positive associations between sensitivity and positive child outcomes. More research on paternal sensitivity in ethnic minority families would, however, provide a much-needed extra dimension to the complex picture of parenting influences on child development (Cabrera, Fitzgerald, Bradley, & Roggman, 2007).

Finally, the field needs studies that disentangle the effects of ethnicity, minority, immigrant and legal status, acculturation, and SES on parenting quality in general and sensitivity in particular. To uncover the unique and joint effects of factors associated with ethnic minority status on parenting, we need studies within ethnic groups that compare those living in their country of origin as part of the ethnic majority to those living in another country as an ethnic minority (including recent and second generation as well as long-standing migrants). One may even consider studying ethnic groups living in neighborhoods in which they are a minority to the same ethnic group living in neighborhoods in which they are part of the majority. This should then be combined with sample stratification based on SES, as well as including measures of stress. Some studies have adopted such an approach (e.g., Chuang & Su, 2009; Daglar et al., 2011; Varela et al., 2004), but none of these examined sensitivity and most were on adolescents.

With our systematic literature review, we documented the crucial role of socioeconomic stressors in the sensitivity of minority parents, whereas we found little evidence for cultural explanations of sensitivity differences between minority and majority groups. We conclude that Conger's family stress model is very much applicable to the stressful family context of ethnic minority parenting. Socioeconomic context puts minority children at risk for unfavorable outcomes, and we found no indications of cultural impairments for parents to be sensitive and for their children to develop optimally when raised sensitively. Minority children's well-being would be greatly served by interventions aimed at both reducing family stress and enhancing parental sensitivity.

REFERENCES

- Ainsworth, M. D. S. (1967). *Infancy in Uganda: Infant care and the growth of love*. Baltimore: Johns Hopkins University Press.
- Ainsworth, M. D. S., Bell, S. M., & Stayton, D. J. (1974). Infant-mother attachment and social development. In M. P. Richards (Ed.), *The introduction of the child into a social world* (pp. 99–135). London: Cambridge University Press.
- Atzaba-Poria, N., & Pike, A. (2008). Correlates of parenting for mothers and fathers from English and Indian backgrounds. *Parenting, 8*, 17–40.
- Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., & Juffer, F. (2003). Less is more: Meta-analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin, 129*, 195–215.
- Bakermans-Kranenburg, M., van IJzendoorn, M., & Kroonenberg, P. (2004). Differences in attachment security between African-American and White children: Ethnicity or socio-economic status? *Infant Behavior & Development, 27*, 417–433.
- Barnard, K. (1994). *Caregiver/parent-child interaction feeding manual*. Seattle: University of Washington School of Nursing.
- Barnett, M. A., Shanahan, L., Deng, M., Haskett, M. E., & Cox, M. J. (2010). Independent and interactive contributions of parenting behaviors and beliefs in the prediction of early childhood behavior problems. *Parenting, 10*, 43–59.
- Benner, A., & Kim, S. (2010). Understanding Chinese-American adolescents' developmental outcomes: Insights from the family stress model. *Journal of Research on Adolescence, 20*, 1–12.
- Berlin, L., Brady-Smith, C., & Brooks-Gunn, J. (2002). Links between childbearing age and observed maternal behaviors with 14-month-olds in the early head start research and evaluation project. *Infant Mental Health Journal, 23*, 104–129.
- Bernstein, V., Harris, E., Long, C., Iida, E., & Hans, S. L. (2005). Issues in the multi-cultural assessment of parent-child interaction: An exploratory study from the starting early starting smart collaboration. *Journal of Applied Developmental Psychology, 26*, 241–275.
- Bernstein, V. J., Percansky, C., & Hans, S. L. (1987). Screening for social-emotional impairment in infants born to teenage mothers. Paper presented at the meetings of the Society for Research in Child Development, Baltimore, MD.
- Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology International Review, 46*, 5–68.
- Biringen, Z. (2008). *The Emotional Availability (EA) Scales* (4th ed.). Available at <http://emotionalavailability.com>
- Bocknek, E., Brophy-Herb, H., & Banerjee, M. (2009). Effects of parental supportiveness on toddlers. *Infant Mental Health Journal, 30*, 452–476.
- Burchinal, M., Vernon-Feagans, L., & Cox, M., & Investigators, Key Family Life Project (2008). Cumulative social risk, parenting, and infant development in rural low-income communities. *Parenting, 8*, 41–69.
- Bus, A. G., Leseman, P. P. M., & Keultjes, P. (2000). Joint book reading across cultures: A comparison of Surinamese-Dutch, Turkish-Dutch, and Dutch parent-child dyads. *Journal of Literacy Research, 32*, 53–76.
- Cabrera, N., Fitzgerald, H. E., Bradley, R. H., & Roggman, L. (2007). Modeling the dynamics of paternal influences on children over the life course. *Applied Development Science, 11*, 185–189.
- Cabrera, N., Shannon, J., Mitchell, S., & West, J. (2009). Mexican American mothers and fathers' prenatal attitudes and father prenatal involvement: Links to mother-infant interaction and father engagement. *Sex Roles, 60*, 510–526.
- Chan, K., Penner, K., Mah, J. W. T., & Johnston, C. (2010). Assessing parenting behaviors in Euro-Canadian and East Asian immigrant mothers: Limitations to observations of responsiveness. *Child & Family Behavior Therapy, 32*, 85–102.
- Chaudhuri, J. H., Easterbrooks, M. A., & Davis, C. R. (2009). The relation between emotional availability and parenting style: Cultural and economic factors in a diverse sample of young mothers. *Parenting: Science and Practice, 9*, 277–299.
- Chen, X., Wu, H., Chen, H., & Cen, G. (2001). Parenting practices and aggressive behavior in Chinese children. *Parenting, Science and Practice, 1*, 159–184.
- Chuang, S., & Su, Y. (2009). Do we see eye to eye? Chinese mothers' and fathers' parenting beliefs and values for toddlers in Canada and China. *Journal of Family Psychology, 23*, 331–341.

- 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*, 526–541.
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1993). Family economic stress and adjustment of early adolescent girls. *Developmental Psychology, 29*, 206–219.
- Conger, R., Wallace, L., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179–193.
- Contreras, J., Mangelsdorf, S., Rhodes, J., Diener, M. L., & Brunson, L. (1999). Parent-child interaction among Latina adolescent mothers: The role of family and social support. *Journal of Research on Adolescence, 9*, 417–439.
- Costigan, C., & Koryzma, C. (2011). Acculturation and adjustment among immigrant Chinese parents: Mediating role of parenting efficacy. *Journal of Counseling Psychology, 58*, 183–196.
- Crittenden, P. M. (1988). Relationships at risk. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 136–174). Hillsdale, NJ: Erlbaum.
- Daglar, M., Melhuish, E., & Barnes, J. (2011). Parenting and preschool child behaviour in Turkish immigrant, migrant, and non-migrant families. *European Journal of Developmental Psychology, 8*, 261–279.
- Deater-Deckard, K., Atzaba-Poria, N., & Pike, A. (2004). Mother- and father-child mutuality in Anglo and Indian British families: A link with lower externalizing problems. *Journal of Abnormal Child Psychology, 32*, 609–620.
- Dunham, E., & Dunham, E. (1990). Effects of mother-infant social interactions on infants' subsequent contingency task performance. *Child Development, 61*, 785–793.
- Eisenberg, N., Losoya, S., Fabes, R. A., Guthrie, I. K., Reiser, M., Murphy, B., et al. (2001). Parental socialization of children's dysregulated expression of emotion and externalizing problems. *Journal of Family Psychology, 15*, 183–205.
- Erickson, M. F., Sroufe, L. A., & Egeland, B. (1985). The relationship between quality of attachment and behavior problems in preschool in a high-risk sample. *Monographs of the Society for Research in Child Development, 50*(1/2, Serial No. 209), 147–166.
- Euser, E., van IJzendoorn, M. H., Prinzie, P., & Bakermans-Kranenburg, M. J. (2011). Elevated child maltreatment rates in immigrant families and the role of socioeconomic differences. *Child Maltreatment, 16*, 63–73.
- Farran, D. C., Kasari, C., Upder, P., Jarber, L., Huntington, G., & Comfort, M. (1987). Rating mother-child interactions in handicapped and at-risk infants. In D. Tamir (Ed.), *Stimulation and intervention in infant development* (pp. 297–312). London: Freund.
- Feldman, R., Gordon, I., Schneiderman, I., Weisman, O., & Zagoory-Sharon, O. (2010). Natural variations in maternal and paternal care are associated with systematic changes in oxytocin following parent-infant contact. *Psychoneuroendocrinology, 35*, 1133–1141.
- Finger, B., Hans, S., Bernstein, V., & Cox, S. M. (2009). Parent relationship quality and infant-mother attachment. *Attachment & Human Development, 11*, 285–306.
- Fracasso, M., Buschrossnagel, N., & Fisher, C. (1994). The relationship of maternal-behavior and acculturation to the quality of attachment in Hispanic infants living in New York city. *Hispanic Journal of Behavioral Sciences, 16*, 143–154.
- Goodman, G., Aber, J., Berlin, L., & Brooks-Gunn, J. (1998). The relations between maternal behaviors and urban preschool children. *Infant Mental Health Journal, 19*, 378–393.
- Greenfield, E. (2011). Grandparent involvement and parenting stress among nonmarried mothers of young children. *Social Service Review, 85*, 135–157.
- Gregory, A., & Rimm-Kaufman, S. (2008). Positive mother-child interactions in kindergarten: Predictors of school success in high school. *School Psychology Review, 37*, 499–515.
- Gungor, D., & Bornstein, M. (2010). Culture-general and -specific associations of attachment avoidance and anxiety with perceived parental warmth and psychological control among Turk and Belgian adolescents. *Journal of Adolescence, 33*, 593–602.
- Hane, A., & Fox, N. (2006). Ordinary variations in maternal caregiving influence human infants. *Psychological Science, 17*, 550–556.
- Howard, K., Lefever, J., Borkowski, J., & Whitman, T. L. (2006). Fathers' influence in the lives of children with adolescent mothers. *Journal of Family Psychology, 20*, 468–476.
- Howes, C., & Guerra, A. (2009). Networks of attachment relationships in low-income children of Mexican heritage: Infancy through preschool. *Social Development, 18*, 896–914.
- Howes, C., & Obregon, N. B. (2009). Emotional availability in Mexican-heritage low-income mothers and children: Infancy through preschool. *Parenting, 9*, 260–276.
- Huang, K., Caughy, M., Genevro, J., & Miller, T. L. (2005). Maternal knowledge of child development and quality of parenting among White, African-American and Hispanic mothers. *Journal of Applied Developmental Psychology, 26*, 149–170.
- Juffer, F., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (Eds.). (2008). *Promoting positive parenting: An attachment-based intervention*. Mahwah, NJ: Erlbaum.
- Kagitcibasi, C. (2007). *Family, self, and human development across cultures: Theory and applications* (2nd ed.). Mahwah, NJ: Erlbaum.
- Kärtner, J., Keller, H., & Yovsi, R. D. (2010). Mother-infant interaction during the first 3 months: The emergence of culture-specific contingency patterns. *Child Development, 81*, 540–554.
- Keller, H. (2000). Human parent-child relationships from an evolutionary perspective. *American Behavioral Scientist, 43*, 957–969.
- Keller, H., & Otto, H. (2009). The cultural socialization of emotion regulation during infancy. *Journal of Cross-Cultural Psychology, 40*, 996–1011.
- Kelley, M., Smith, T., Green, A., Berndt, A. E., & Rogers, M. C. (1998). Importance of fathers' parenting to African-American toddler's social and cognitive development. *Infant Behavior & Development, 21*, 733–744.
- Kiang, L., Moreno, A., & Robinson, J. (2004). Maternal preconceptions about parenting predict child temperament, maternal sensitivity, and children. *Developmental Psychology, 40*, 1081–1092.
- Kochanska, G. (2002). Mutually responsive orientation between mothers and their young children: A context for the early development of conscience. *Current Directions in Psychological Science, 11*, 191–195.
- Kogan, N., & Carter, A. S. (1996). Mother-infant reengagement following the still-face: The role of maternal emotional availability in infant affect regulation. *Infant Behavior & Development, 19*, 359–370.
- Kolobe, T. (2004). Childrearing practices and developmental expectations for Mexican-American mothers and the developmental status of their infants. *Physical Therapy, 84*, 439–453.

- Leidy, M., Guerra, N., & Toro, R. (2010). Positive parenting, family cohesion, and child social competence among immigrant Latino families. *Journal of Family Psychology, 24*, 252–260.
- Leseman, P. P. M., & De Jong, P. F. (1998). Home literacy: Opportunity, instruction, cooperation, and social-emotional quality predicting early reading achievement. *Reading Research Quarterly, 33*, 294–318.
- Leseman, P. P. M., & Van den Boom, D. C. (1999). Effects of quantity and quality of home proximal processes on Dutch, Surinamese–Dutch and Turkish–Dutch pre-schoolers’ cognitive development. *Infant and Child Development, 8*, 19–38.
- Letourneau, N., Hungler, K., & Fisher, K. (2005). Low-income Canadian aboriginal and non-aboriginal parent-child interactions. *Child Care Health and Development, 31*, 545–554.
- Liu, L., Lau, A., Chen, A., Dinh, K. T., & Kim, S. J. (2009). The influence of maternal acculturation, neighborhood disadvantage, and parenting on Chinese American adolescents. *Journal of Youth and Adolescence, 38*, 691–702.
- Marfo, K. (1992). *Parent-child interaction, MULTI-PASS, Version 3.0*. Unpublished instrument, Department of Educational Psychology and Leadership Studies, Kent, OH.
- Mather, M. (2010). *U.S. children in single-mother families* (Population Reference Bureau data brief). Washington, DC: Population Reference Bureau.
- McLoyd, V. (1990). The impact of economic hardship on black families and children—Psychological distress, parenting, and socio-emotional development. *Child Development, 61*, 311–346.
- Milevsky, A., & Levitt, M. (2005). Sibling support in early adolescence: Buffering and compensation across relationships. *European Journal of Developmental Psychology, 2*, 299–320.
- Mistry, R. S., Biesanz, J., 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*, 193–212.
- National Poverty Center. (2009). *The colors of poverty: Why racial and ethnic disparities persist* (National Poverty Center Policy Brief #16). Ann Arbor, MI: Author.
- NICHD Early Child Care Research Network. (1999). *NICHD study of early child care*. Phase I instrument document (CD-Rom, NICHD). Retrieved February 11, 2011, from <http://public.rti.org/secc/>
- Ogbo, J. U. (1981). Origin of human competence: A cultural–ecological perspective. *Child Development, 52*, 413–429.
- Platt, L. (2007). Child poverty, employment and ethnicity in the UK: The role and limitations of policy. *European Societies, 9*, 175–199.
- Posada, G., Gao, Y., Fang, W., Posada, R., Tascon, M., Schoelmerich, A., et al. (1995). The secure-base phenomenon across cultures: Children’s behavior, mothers’ preferences, and experts’ concepts. In E. Waters, B. Vaughn, G. Posada, & K. Kondo-Ikemura (Eds.), *Caregiving, cultural, and cognitive perspectives on secure-base behavior and working models: New growing points of attachment theory and research* (pp. 27–48). *Monographs of the Society for Research in Child Development, 60*(2–3, Serial No. 244).
- Propper, C., Willoughby, M., Halpern, C., Carbone, M. E., & Cox, M. (2007). Parenting quality, DRD4, and the prediction of externalizing and internalizing behaviors in early childhood. *Developmental Psychobiology, 49*, 619–632.
- Pungello, E., Iruka, I., Dotterer, A., Mills-Koonce, R., & Reznick, S. (2009). The effects of socioeconomic status, race, and parenting on language development in early childhood. *Developmental Psychology, 45*, 544–557.
- Riksen-Walraven, J. M. A., Meij, J. T., Hubbard, F. O., & Zevalkink, J. (1996). Intervention in lower-class Surinam-Dutch families: Effects on mothers and infants. *International Journal of Behavioral Development, 19*, 739–756.
- Riksen-Walraven, J. M., & Zevalkink, J. (2000). Gifted infants: What kind of support do they need? In C. F. M. van Lieshout & P. G. Heymans (Eds.), *Developing talent across the life span* (pp. 203–231). New York: Psychology Press.
- Roberts, J., Jurgens, J., & Burchinal, M. (2005). The role of home literacy practices in preschool children. *Journal of Speech, Language, and Hearing Research, 48*, 345–359.
- Rowe, D. C., Vazsonyi, A. T., & Flannery, D. J. (1994). No more than skin deep: ethnic and racial similarity in developmental process. *Psychological Review, 101*, 396–413.
- Sessa, F., Avenevoli, S., Steinberg, L., & Morris, A. S. (2001). Correspondence among informants on parenting: Preschool children, mothers, and observers. *Journal of Family Psychology, 15*, 53–68.
- Shannon, J. D., Tamis-LeMonda, C. S., & Cabrera, N. (2006). Fathering in infancy: Mutuality and stability between 8 and 16 months. *Parenting, 6*, 167–188.
- Shannon, J. D., Tamis-LeMonda, C. S., London, K., & Cabrera, N. (2002). Beyond rough and tumble: Low-Income fathers’ interactions and children’s cognitive development at 24 months. *Parenting, 2*, 77–104.
- Smith, P. K., & Drew, L. M. (2002). Grandparenthood. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 3. Being and becoming a parent* (pp. 141–172). Mahwah, NJ: Erlbaum.
- Sociaal en Cultureel Planbureau. (2009). *Jaarrapport Integratie 2009*. Den Haag, Netherlands: Author.
- Spiker, D., Ferguson, J., & Brooks-Gunn, J. (1993). Enhancing maternal interactive behavior and child social competence in low-birth-weight, premature infants. *Child Development, 64*, 754–768.
- Sumner, F., & Spietz, A. (1994). *NCATS/Caregiver/Parent-child interaction teaching manual*. Seattle, WA: NCATS.
- Tamis-LeMonda, C. S., Bornstein, M. H., & Baumwell, L. (2001). Maternal responsiveness and children’s achievement of language milestones. *Child Development, 72*, 748–767.
- Tarabulsky, G. M., Tessier, R., & Kappas, A. (1996). Contingency detection and the contingent organization of behavior in interactions: Implications for socioemotional development in infancy. *Psychological Bulletin, 120*, 25–41.
- van IJzendoorn, M. H. (1990). Attachment in Surinam-Dutch families: A contribution to the cross-cultural study of attachment. *International Journal of Behavioural Development, 13*, 333–344.
- van IJzendoorn, M. H., & Sagi-Schwartz, A. (2008). Cross-cultural patterns of attachment: Universal and contextual dimensions. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 880–905). New York: Guilford.
- van IJzendoorn, M. H., Vereijken, C. M. J. L., Bakermans-Kranenburg, M. J., & Riksen-Walraven, J. M. A. (2004). Assessing attachment security with the attachment Q Sort: Meta-analytic evidence for the validity of the observer AQS. *Child Development, 75*, 1188–1213.
- Varela, R., Verberg, E., Sanchez Sosa, J., Riveros, A., Mitchell, M., & Msahunkashey, J. (2004). Parenting style of Mexican, Mexican American, and Caucasian-non-Hispanic families: Social context and cultural influences. *Journal of Family Psychology, 18*, 651–657.

- Wallace, I., Roberts, J., & Lodder, D. (1998). Interactions of African American infants and their mothers: Relations with development at 1 year of age. *Journal of Speech, Language, and Hearing Research, 41*, 900–912.
- Whiteside-Mansell, L., Bradley, R. H., Owen, M. T., Randolph, S. M., & Cauce, A. M. (2003). Parenting and children's behavior at 36 months: Equivalence between African American and European American mother-child dyads. *Parenting, 3*, 197–234.
- Worobey, J., Lopez, M., & Hoffman, D. (2009). Maternal behavior and infant weight gain in the first year. *Journal of Nutrition Education and Behavior, 41*, 169–175.
- Yagmurlu, B., & Altan, O. (2010). Maternal socialization and child temperament as predictors of emotion regulation in Turkish preschoolers. *Infant and Child Development, 19*, 275–296.
- Yagmurlu, B., & Sanson, A. (2009). Parenting and temperament as predictors of prosocial behaviour in Australian and Turkish Australian children. *Australian Journal of Psychology, 61*, 77–88.
- Yaman, A., Mesman, J., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2010a). Perceived family stress, parenting efficacy, and child externalizing behaviors in second-generation immigrant mothers. *Social Psychiatry and Psychiatric Epidemiology, 45*, 505–512.
- Yaman, A., Mesman, J., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2010b). Parenting and toddler aggression in second-generation immigrant families: The moderating role of child temperament. *Journal of Family Psychology, 24*, 208–211.
- Yaman, A., Mesman, J., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., & Linting, M. (2010). Parenting in an individualistic culture with a collectivistic cultural background: The case of Turkish immigrant families with toddlers in the Netherlands. *Journal of Child and Family Studies, 19*, 6–17.
- Zevalkink, J., & Riksen-Walraven, J. M. (2001). Parenting in Indonesia: Inter- and intracultural differences in mothers' interactions with their young children. *International Journal of Behavioral Development, 25*, 167–175.