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Journal

American Journal on Intellectual and Developmental Disabilities, 120(1)

ISSN

1944-7515

Authors

Cohen, Shana R
Holloway, Susan D
Domínguez-Pareto, Irenka
et al.

Publication Date

2015

DOI

10.1352/1944-7558-120.1.16

Peer reviewed

Support and Self-Efficacy Among Latino and White Parents of Children With ID

Shana R. Cohen, Susan D. Holloway, Irenka Domínguez-Pareto, and Miriam Kuppermann

Abstract

Research indicates that mothers of children with ID who receive familial support experience less stress than those who receive less support. Less is known about the relation of support to mothers' evaluation of parenting self-efficacy, particularly in Latino families. We examined the relationship of different types of family support to life satisfaction and parenting self-efficacy (PSE), and explored whether income and ethnicity moderated these relationships. Interviews with 84 Latino and 37 White participants revealed that partner emotional support predicted life satisfaction and PSE in both ethnic groups, with a stronger relationship evident for the PSE of Latino mothers. Income was not a significant moderator. These findings provide guidance for more effective family interventions targeted toward Latinos.

Key Words: *Latino families; intellectual disability; familial support; parenting self-efficacy; individual life satisfaction*

Recent studies have shown that mothers who care for a child with an intellectual disability (ID) exhibit significantly higher levels of depression and stress compared with mothers of typically developing children or children with less serious disabilities (Minnes, 1998; Olsson & Hwang, 2001, 2002). Because psychological stress tends to diminish psychological availability (Crnic & Low, 2002), parents with higher perceived stress are more likely to be controlling, inconsistent, and harsh compared to those experiencing less stress (Barry, Dunlap, Lochman, & Wells, 2009; Grolnick, 2003). However, not all parents who experience stressors associated with having a child with ID are equally debilitated. Confident parents—or those with high parenting self-efficacy (PSE), as it is referred to in the research literature—respond to challenging childrearing tasks with effort and optimism, and are thus able to be consistent, contingent, and authoritative when engaging with their children as compared to those experiencing lower self-efficacy (Coleman & Karaker, 1998; Jones & Prinz, 2005; Teti & Gelfand, 1991).

Given the powerful association between parenting self-efficacy and active parent engagement, it is important to identify the factors that enable parents to experience a sense of confidence that they are able to achieve the parenting goals that they set out for themselves. The preponderance of research to date has focused on the effects of support for families of children with ID from formal sources such as teachers or health professionals, and this work suggests that support of this type can be quite effective in reducing stress (Hastings & Beck, 2008), promoting psychological well-being, and improving family functioning (Boyd, 2002; Dunst, Boyd, Trivette, & Hamby, 2002). A great deal less is known about informal support from family and friends. For parents of children with ID, informal support has also been associated with less parenting stress (Dunst, Trivette, & Cross, 1986; Telleen, Herzog, Kilbane, 1989), but we found few studies examining the role of informal support in promoting parenting self-efficacy (Izzo, Weiss, Shanahan, Rodriguez-Brown, 2000). In this study, we address this gap in the literature by focusing on the association between

informal social support and parenting self-efficacy of mothers caring for children with ID.

Social support has long been associated with increased PSE for mothers who care for typically developing children (Coleman & Karraker, 1998; Cutrona & Troutman, 1986). Self-efficacy theory suggests a direct relationship between social support, particularly spousal support, and a mother's PSE (Teti & Gelfand, 1991). Family members (e.g., spouses) and friends, observing the mothers' parenting behaviors, use social persuasion to reassure the mother that she is caring and loving, while also engaging in and guiding the mother through successful childcare routines. Of the few studies that have examined the role of informal support in enhancing a caregiver's PSE for children with disabilities, social support was found to be the most powerful predictor of parenting competence (Stoneman & Crapps, 1988). Informal support may be particularly useful given the child-rearing challenges associated with caring for children with ID that may undermine a mother's PSE. Mothers must be able to persistently engage in authoritative and consistent interactions when their children exhibit challenging behaviors (Hastings & Brown, 2002).

Whereas PSE refers to a mother's sense of competence within the parenting domain and is contingent upon the direct interactions between the mother and her child, individual life satisfaction refers to a more global assessment of an individual's quality of life based on the individual's criteria (Diener, Emmons, Larson, Griffin, 1985). Life satisfaction examines the individual's overall sense of well-being rather than focusing specifically on one domain. Few studies have examined the relationship between social support and life satisfaction for mothers who care for children with disabilities (Cmic, Greenberg, Ragozin, Robinson, & Basham, 1983). In one study, mothers of preterm infants' perceived support from family and community members predicted their life satisfaction, whereas support from friends did not (Cmic et al., 1983). In a comparable study examining families with children with rare disorders, mothers identified social network support as an important contributor to their life satisfaction (Dellve, Samuelsson, Tallborn, Fasth, Hallberg, 2006). Even if a parent feels relatively efficacious in caring for her child with disabilities, the stress of doing so may undermine her perception of life satisfaction. We were interested in learning whether informal social support would mediate the effects

of the stressors associated with having a child with ID on life satisfaction.

Conceptualizing Various Types and Sources of Informal Support

In our study, we were interested in two *types* of informal support: instrumental (e.g., caregiving and financial assistance) and emotional (e.g., encouragement and social companionship) support. Emotional support is the encouragement and social companionship that is conveyed through caring responses to psychological distress and emotional insecurities. In contrast, instrumental support refers to more tangible resources. We were also interested in two *sources* of support: support provided by the spouse and support provided by other family members.

With respect to the types of informal support, the literature on families of children with an ID suggests that parents who perceive that they receive informal sources of emotional support are more likely to experience high PSE (Armstrong, Birnie-Lefcovitch, & Ungar, 2005) and a greater degree of life satisfaction (Cmic et al., 1983). Less is known about the effects of instrumental support. Research conducted to date has examined how instrumental support addresses the needs of the individual with a disability (Brathwaite & Eckstein, 2012; Wallsten, Tweed, Blazer, & George, 1999); relatively little has examined the effects on parents of children with ID.

The literature provides a mixed picture concerning the sources of support that contribute to a mother's well-being. Most studies examining social support for children with disabilities have found that spousal support is positively related to fewer depressive symptoms, happier marriages, and mothers who are better able to relate emotionally to their children (Bristol, 1984; Hadadian, 1994; Herman & Thompson, 1995). One study, however, suggests that partner support may inadvertently exacerbate stress by disrupting caregiving routines already established by the mother (Button, Pianta, Marvin, 2001). Another source of support—extended family networks—has also been associated with a reduced inclination to place children in institutions, reduced caregiving stress, and enhanced family functioning (Leung & Erich, 2002; Raif & Rimmerman, 1993; Salisbury, 1990). In these studies, however, the specific sources of supports were not clearly identified and there was limited discussion as to the type of support that enhanced maternal well-being. Our study addresses

these gaps by distinguishing the types and sources of informal support that are associated with life satisfaction and PSE.

Social Support, Life Satisfaction, and Parenting Self-Efficacy: A Cultural Perspective

In our study we explored the dynamic relationship among informal social support and parents' psychological outcomes in a socioculturally diverse sample. In particular, we were interested in Latino families. Our focus on Latino families who have a child with a disability is timely because Latino children are the fastest growing subgroup receiving developmental services in California as well as in other states (e.g., California Department of Developmental Services, 2008)¹. Yet disparities in health care services make it likely that these marginalized groups more often must depend upon informal rather than formal sources for various types of support.

Compared to White families, Latinos are consistently underdiagnosed and receive less access to effective mental health services, education, and medical interventions (Begeer, El Bouk, Boussaid, Terwogt, & Koot, 2009; Liptak et al., 2008; Mandell, Listerud, Levy, & Pinto-Martin, 2002; Mandell & Novak, 2005; Zaroff & Uhm, 2012). What is more, institutional disparities exist in access to effective interventions for Latino children and their families. In California, compared to White children, Latino children received an average of 65% of funding provided by the Department of Developmental Services (Zarembko, 2011). In Texas, a recent study found that Latino children are two to three times less likely to be diagnosed with Autism Spectrum Disorder (ASD) as compared to non-Latino children, controlling for socioeconomic status (Palmer, Walker, Mandell, Bayles, & Miller, 2010).

These barriers can exacerbate family challenges but also give rise to robust coping strategies (Blacher, Neece, & Paczkowski, 2005). For example, while Mexican-heritage mothers who have a child with ID are more at risk of depression than are White women (Blacher & McIntyre, 2006;

Eisenhower & Blacher, 2006), they are also more likely to view that child as having a positive impact on the family (Blacher & Baker, 2007). But little is known about the factors that enhance the psychological well-being of Latino mothers raising a child with ID. Given these well-documented limitations in services for Latino families, to what extent does informal support of various types and from various sources promote the life satisfaction and PSE of Latino mothers?

In this study, we were particularly interested in examining ethnic differences in the relative efficacy of spousal support as opposed to support from other family members in promoting mothers' PSE and life satisfaction. There is some evidence in research on Latino families that extended family members frequently assist with child-rearing and provide emotional support to the mother (Correa, Bonilla, Reyes-Macpherson, 2011; López, 1999) but this is certainly not unique to this ethnic group. Yet, it is possible that Latino mothers may benefit more from their extended family than White mothers, for several reasons. Culturally constructed beliefs about gender roles constitute one factor that may affect the types of support provided by various actors (Magaña, Seltzer, & Krauss, 2004). Men's willingness to engage in certain household tasks may be diminished if they endorse the notion of *machismo* (Baca Zinn & Pok, 2002).

In much of the research examining disparities in access to resources and supports for children with disabilities and their families, oftentimes ethnicity is confounded with socioeconomic status. In fact, family income has been shown to be a more powerful risk factor in predicting disability than race or ethnicity (Fujiura & Yamaki, 2000). These socioeconomic differences are also evident in studies comparing mothers' well-being (i.e., happiness, self-esteem, and self-efficacy) between mothers who cared for children with ID and mothers who cared for typically developing children. Although mothers of children with ID reported lower levels of well-being, the family's socioeconomic status fully accounted for the differences in well-being between the two groups (Emerson, Hatton, Llewellyn, Blacher, & Graham, 2006). In an attempt to understand the broader social context in which Latino families rear their children, our study aimed to distinguish family income from ethnicity and examine the moderating effect of each of these factors on the relationship between social support and maternal well-being (i.e., PSE individual life satisfaction).

¹ The category "Latino" refers to a group that, although it may share certain characteristics (e.g., recent immigration, a common language, and experiences of discrimination), is heterogeneous with respect to such factors as socioeconomic status, national origin, and sociocultural beliefs and practices (Cauce & Doménech-Rodríguez, 2002; Skolnick, Baca Zinn, & Wells, 2005).

Research Questions and Hypotheses

Given that mothers are still considered the primary caregivers of children with disabilities (Glidden & Schoolcraft, 2007) and generally express a greater need than fathers for family and social support (Bailey, Blasco, & Simeonsson, 1992), the present study aimed to understand the relation between support and maternal PSE and support and maternal life satisfaction with two primary research questions:

- **What is the relation among specific types (i.e., instrumental vs. emotional) and sources (i.e., spouse vs. other family members) of support and maternal well-being (i.e., PSE and life satisfaction)?** Consistent with previous studies on parents of typically developing (Cutrona & Troutman, 1986; Wan, Jaccard, & Ramey, 1996) and atypically developing (Armstrong et al., 2005; Boyd, 2002; Crnic et al., 1983) children, we expected mothers who perceived themselves as having greater emotional and instrumental support would be more likely to experience high PSE and greater life satisfaction.
- **Does income level or ethnicity moderate the relationship of these types and sources of support to PSE and life satisfaction?** We expected low-income families to receive more benefit from instrumental and emotional support than high-income families because high-income families have the financial resources to attain formal types of support (e.g., therapists) that address their emotional and caregiving needs. Low-income families may not have the financial resources to attain these supports, and they may have to rely on family members to support them. We also expected that immigrant Latinos might derive particularly strong benefits from emotional support due to the uncertainty they may feel when interacting with teachers and service providers who speak a different language and who may hold discrepant cultural beliefs about education (Goldenberg & Gallimore, 1995) or disability (Gannotti, Handwerker, Groce, & Cruz, 2001).

Method

Participants

We conducted a cross-sectional study of English- or Spanish-speaking mothers of children aged 2 to 10 years who had been diagnosed with an ID. Families were primarily recruited from a private

nonprofit regional center providing services to individuals with developmental disabilities and from the pediatric medical genetics clinic of an academic medical center. These institutions searched their records and identified families who had a child between the age of 2 and 10 with an ID. The institutions used the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* to define an intellectual disability (American Psychiatric Association, 1994).

In order to oversample Latino participants, we identified Latino families based on demographic information obtained from the regional center and the medical clinic database and targeted them for recruitment. Overall, 24% of families who were contacted through the regional center or medical clinic agreed to be interviewed. Thirty of these were not enrolled in the study because they did not meet eligibility criteria or were unable to schedule an interview. An additional 18 families were recruited at a conference and at a parent support group for Latino parents of children with ID. The final sample included 201 self-identified primary parents (90.5% mothers) of children with ID, of whom 56% were Latinos.

In this article, we focus on the 121 mothers (84 Latino and 37 White) who reported being married (see Table 1 for family demographic characteristics). Respondents included 88 mothers from the regional center, 17 from the medical clinic, and 16 from the conference or the parent support group. The average age of the focal child was 6.15 years (35% female). According to the mothers' report, 46% of the children had a diagnosis of autism. Other diagnoses included cerebral palsy (11%), Down syndrome (12%), and more rare conditions associated with ID (e.g., spina bifida). Mother's age averaged 35 years, and 33% were employed outside the home. The average annual household income was in the \$25,000 to \$50,000 range (see Table 1). One or more grandparents was living in 12% of the households, and another adult in addition to a parent, partner, or grandparent resided in 15% of the families.

Latino respondents differed from the rest of the sample in several respects. The Latino respondents had fewer years of formal education than the White participants, were less likely to be employed, had a considerably lower household income, were more likely to be born outside the United States, and were more likely to speak Spanish at home (88%).

Table 1
Mother and Child Demographic Characteristics by Ethnicity, Percentages

	Total (n = 121)	Latino (n = 84)	White (n = 37)	T-Test Statistic
Focal child age	6 yrs. (2.27)	6 yrs. (2.11)	7 yrs. (2.25)	3.84*
Focal child female	35	33	38	-.07
Autism diagnosis	46	45	49	.96
Two or more children per household	85	85	87	-.78
Mother's mean age	35 yrs. (6.19)	34 yrs. (6.11)	39 yrs. (5.10)	4.84*
Mother employed	33	20	62	5.91*
Mother born in United States	35	8	95	11.33*
Country of origin				12.53*
Mexico	87	87	-	-
Guatemala	1	1	-	-
El Salvador	7	7	-	-
Other Latin Country	5	5	-	-
Mother schooling				8.53*
11 th grade or less	21	30	0	-
High school graduate	27	36	5	-
Some college	20	21	19	-
Bachelor's degree	18	13	30	-
College graduate	14	0	46	-
Household income				9.78*
Under \$25,000	24.5	33	3	-
\$25,000–\$50,000	34.5	45	9	-
\$50,000–\$100,000	18	18	19	-
Over \$100,000	23	4	69	-

Note. Asterisks indicate significant differences between Latino and White participants (t-tests). Standard deviation in parentheses.

* $p < .00$.

Procedures and Measures

Data were obtained via telephone interviews, which lasted for approximately 45 minutes and were conducted in English or Spanish. Participants received a \$20 gift card as remuneration. Interview questions were drawn from several reliable surveys and one open-ended interview protocol. Additional details for each measure, including the source and how it was adapted, are provided below. As the original measures were intended to be paper and pencil measures, we had to make substantial revisions to accommodate the special characteristics of our sample. Understanding that these mothers were busy, we did not make use of open-ended questions. Given the low education levels of some of our participants, and in order to accommodate a phone conversation, we simplified the wording of some questions. We

relied exclusively on 3-point Likert scales rather than the more complex scales that accompanied the original version of these measures. Considering most of our Latino sample was Spanish speaking, all surveys were translated into Spanish and back-translated to assure consistency with English protocols.

Instrumental support. Drawing from the work on family routines conducted by Gallimore and his colleagues (1996), we posed 20 questions about who in the household conducted various routine child-rearing and household tasks. Our questions covered four areas: household activities, child interaction activities, education and service-related activities, and parent learning activities.

The first domain, *household activities*, contained seven questions pertaining to cleaning, food preparation, and general home maintenance

(e.g., “Who does the cooking?”). *Child interaction activities* contained five questions related to direct behavioral interactions with the focal child (e.g., “Who plays with the child?”). *Education and service-related activities* contained five items related to managing relations with the child’s teachers, therapists, and peers (e.g., “Who makes the child’s medical and therapy appointments?”). *Parent learning activities* included three items assessing family members’ attempts to learn more about the focal child’s disability and available services (e.g., “Who, if anyone, goes to meetings or classes about child’s disability or belongs to a parent support group?”). For each activity, the respondent was asked to identify who in the household usually performed that activity. Respondents could mention more than one member of the family for each activity.

Two instrumental support composites were created from this measure: *instrumental support from spouse/partner* ($\alpha = .72$) and *instrumental support from other family member* ($\alpha = .79$). The composites were formed by summing the numbers of activities in which the supporter interacted with the child across all four activity domains. For example, if a mother reported that her spouse/partner engaged in 12 out of the 20 instrumental support activities, her score for instrumental support from the spouse/partner would be 12. We used this measure to examine how instrumental support differed between Latino and White mothers.

Emotional support. We used three items from Kessler’s Perceived Social Support Scale (Kessler, 1992), a self-report scale that measures a participant’s perception of reassurance and nurturance from family members and friends. We retained the items that examined the participant’s perceptions of spouse/partner and other family members’ degree of emotional support. The mothers were asked to indicate on a 3-point Likert scale (*not true, somewhat true for me, true*) the extent to which certain family members living in the household (e.g., partners, other children, grandparents) provided support based on each stem question (e.g., “My partner listens to me if I need to talk about my worries or problems concerning my child.”). Since the distribution of these questions was bimodal, scores were converted to a dichotomous variable. Answer choices 0 (*not true*) and 1 (*somewhat true*) were assigned a value of 0. Answer choice 3 (*true*) was assigned a value of 1, indicating that the family member

provided emotional support. Cronbach’s alpha for this measure was .81.

Parenting self-efficacy. We used 13 items from the adapted Family Empowerment Scale (Koren, DeChillo, & Friesen, 1992). Sample items included statements such as: “I feel confident in my ability to help my child grow and develop,” or “I believe I can solve problems with my child when they happen.” Participants were asked to endorse each statement based on a 3-point Likert scale (*not true, somewhat true, true*). We created a composite by averaging the item scores. Cronbach’s alpha for this measure was .85. To correct for skewness, we computed the cube of this composite for use in subsequent analyses (see Austin & Brunner, 2003, for further description of cubed root formation).

Satisfaction with life. We used the 5-item Satisfaction With Life Scale (Diener et al., 1985). Sample items included statements such as: “The conditions of my life are excellent,” or “I am satisfied with my life.” Participants were asked to respond to each statement based on a 3-point scale (*disagree, agree somewhat, agree*). We created a composite by averaging the item scores. Cronbach’s alpha for this measure was .81. To correct for skewness, we computed the squared term of this composite for use in subsequent analyses (Austin & Bruner, 2003).

Child diagnosis and functioning. As per our sampling process, the focal children had all received a diagnosis of ID from a medical or service provision agency. We asked participants to tell us more specifically what diagnosis their child had received. As an additional check on parents’ report, we conducted a substudy of 24 participants recruited from the genetics clinic for whom medical charts could be obtained. This procedure yielded an error rate of approximately 8% (i.e., two of these participants indicated during their interview that their child had autism, but the medical charts did not include this diagnosis), suggesting that most parents were accurate reporters. This is consistent with other research indicating that parent reports of developmental delay are usually reliable (e.g., Rydz et al., 2006).

Based on parent report, we created a dichotomous category indicating whether or not the child had a diagnosis of autism. As an additional indicator of the child’s level of functioning, we adapted nine items from the Ages and Stages Questionnaire (Bricker & Squires, & Mounts, 1995; Squires, Potter, & Bricker, 1999). Respon-

dents were asked to describe the focal child's skills with respect to physical, cognitive, and social development using a 3-point scale (*yes, somewhat, no*). Since the entire scale did not independently correlate with our response variables, we chose to use only the items that correlated with PSE and life satisfaction. The question "Does your child play well with others?" was the only item that correlated with our dependent measures. Since the distribution of this question was bimodal, it was converted from a continuous variable to a dichotomous variable. Answer choices 1 (*yes*) and 2 (*somewhat*) were assigned the value 1. Answer choice 3 (*no*) was assigned the value 0, indicating that the child did not play well with others.

Other child characteristics. Respondents indicated the birth date and gender of the focal child.

Family resources. Drawing from basic demographic data provided by the participants we computed dichotomous variables for annual household income (under \$50,000 vs. over \$50,000), mother's education (high school graduate or less vs. more than high school), and mother and partner's employment status (employed vs. not employed).

Sociocultural characteristics. We asked respondents to indicate their ethnic identification and dichotomized the responses to create an indicator of Latino and White status. We asked about their home language and created a variable assessing whether or not the primary home language was English. We also asked where they had been born; this was dichotomized to indicate whether or not the individual had been born in the United States.

Data Analysis

Table 2 illustrates the descriptive statistics of the major study variables. To understand the relationship between the types (i.e., emotional vs. instrumental) and sources (i.e., spouse vs. other family member) of support and maternal well-being (i.e., PSE and life satisfaction), a two-step data analysis process was conducted. First, correlations were analyzed to determine which child and maternal characteristics to include in an Ordinary Least Squares (OLS) regression. We included the demographic characteristics that correlated with both of our dependent measures. Then, one regression was conducted with each dependent variable (PSE and life satisfaction). The regressions

included the demographic characteristics that were significantly correlated with both of our dependent variables in block one, and all of the support composites (emotional support from partner, emotional support from other family members, instrumental support from partner, and instrumental support from other family members), in block two. For our sample of 121 participants and an alpha level set at 0.05, an adequate power was achieved at 0.99 (Cohen, 1988).

To understand how income or ethnicity moderated the relationship of these types and sources of support to our dependent variables—PSE and life satisfaction—interaction terms were created with the support composites that were significant from the initial regression analyses. Separate regression analyses were conducted with each set of moderator variables. The regressions included the demographic characteristics that were significantly correlated with both of our dependent variables in block one, the support composites that were significant from Model 1 in block two, and the interaction terms in block three. Post hoc analyses of the regression models were then conducted to examine the significant interactions from the regressions.

Results

What Is the Relation Among the Types and Sources of Support and Maternal Well-Being (i.e., PSE and Life Satisfaction)?

Bivariate relations between the response variables (i.e., PSE and life satisfaction) and the child and family characteristics revealed some significant correlations. With regards to the child-level characteristics, mothers who reported having a female child ($t = 2.31, p < 0.05$), and a child that played well with others reported having a higher sense of PSE than mothers who had a child who did not play well with others ($t = 2.04, p < 0.05$). Mothers who reported having a child with autism had a significantly lower satisfaction with life ($t = -2.66, p < 0.01$).

With regards to the mother characteristics, mothers who were high school graduates reported a lower life satisfaction than mothers who were less educated ($t = -2.06, p < 0.05$). In all subsequent regression models, we controlled on mother's ethnicity, SES (education and family income), and child's condition (mother rating, diagnosis).

Table 2
Descriptive Statistics of Major Study Variables by Ethnicity

	Total (n = 121)		Latino (n=84)		White (n = 37)	
	M	SD	M	SD	M	SD
Parenting Self-Efficacy	19.39	6.03	19.03	6.37	20.22	5.16
Individual Life Satisfaction	5.98	2.41	6.18	2.35	5.53	2.49
Emotional Support From Partner	.76	.43	.69	.47	.85	.36
Emotional Support From Other Family Member	.81	.40	.81	.40	.79	.41
Instrumental Support From Partner	9.65	3.52	9.50	3.55	10.00	3.48
Instrumental Support From Other Family Member	5.12	4.10	5.20	3.88	4.95	4.62

Note. The difference between Latino and White participants on Emotional Support From Partner was significant on t-test analyses (t-test statistic = 2.28*).

* $p < .05$.

Table 3 shows the results of the OLS linear multiple regression analysis that included the five demographic characteristics and the main effect support composite variables. Mothers who reported a greater sense of PSE were more likely to have a higher functioning child ($b = 0.22, p < 0.05$). They were also more likely to report receiving emotional support from their partner ($b = 0.36, p < 0.00$). The demographic characteristics accounted for 8% of the variance in PSE. When the support predictors were added to the model, they accounted for 18% of the variance of PSE.

Mothers who reported a higher life satisfaction were more likely to report receiving emotional support from their partner ($b = 0.35, p < 0.000$) and from other family members ($b = 0.17, p < 0.05$). The demographic characteristics accounted for 9% of the variance in life satisfaction. When the support predictors were added to the model, they accounted for 23% of the variance in life satisfaction.

Does Income or Ethnicity Moderate the Relationship of These Types and Sources of Support to PSE and Life Satisfaction?

To test the moderating effect of ethnicity and income, interaction terms were added to the regression models from research question 1. The first interaction term included ethnicity and emotional support from partner. The second interaction term included income and emotional support from partner. Income did not significantly moderate the relationship between emotional support from partner and PSE or individual life satisfaction, so it was excluded from model two. The interaction terms that included emotional

support from other family members were not significant and were also excluded from the model. Model two shows the results of the moderator relationships (see Table 3).

Mothers with a greater PSE reported having a higher functioning child ($b = .21, p < 0.05$). Post hoc examination of the interaction indicated that emotional support from the spouse/partner was more strongly related to a mother's PSE for Latino mothers than for White mothers (see Figure 1). Income did not significantly moderate the relationships between perceived emotional support and PSE. The demographic characteristics accounted for 8% of the variance in PSE. When the support predictors were added to the model, they accounted for 19% of the variance in PSE. When the ethnicity interaction was added to the model, it accounted for 21% of the variance in PSE.

Mothers with greater life satisfaction reported having a higher-functioning child ($b = .18, p < 0.01$) and emotional support from their family member ($b = .18, p < 0.05$). Ethnicity did not significantly moderate the relationship between perceived emotional support and individual life satisfaction. The demographic characteristics accounted for 9% of the variance in life satisfaction. When the support predictors were added to the model, they accounted for 23.5% of the variance in individual life satisfaction. When the ethnicity interaction was added to the model, it accounted for 24% of the variance in PSE.

Discussion

Previous research on families with a child with ID has focused primarily on the alleviation of maternal stress through various forms of coping,

Table 3
Parenting Self Efficacy & Individual Life Satisfaction Regression Models

	Parenting Self-Efficacy						Individual Life Satisfaction					
	Model 1: Demographics & Support			Model 2: Emotional Support & Ethnicity Interactions			Model 1: Demographics & Support			Model 2: Emotional Support & Ethnicity Interactions		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Block 1												
Child Functioning	2.56	1.10	.22*	2.46	1.06	.21*	.83	.45	.16	.91	.44	.18*
Child Autism	-1.56	1.17	-.13	-1.88	1.10	-.16	-.63	.48	-.13	-.80	.46	-.16
Mother Ethnicity	1.09	1.56	.08	-3.58	2.80	-.28	.62	.64	.11	-.43	1.17	-.08
Mother Education	.80	1.30	.07	1.03	1.26	.09	-.27	.53	-.05	-.29	.53	-.06
Household Income Dichotomous at \$50,000	1.57	1.43	.13	1.56	1.34	.13	-.34	.59	-.07	-.15	.56	-.03
F	2.83*						3.11**					
Adjusted R ²	.08						.09					
Block 2												
Emotional Support/Partner	4.98	1.37	.36***	.08	2.59	.01	2.04	.56	.35***	1.07	1.08	.18*
Emotional Support/Other Family	3.22	2.11	.14	3.07	2.05	.13	1.68	.86	.17*	1.78	.85	.18
Instrumental Support/Partner	-.14	.16	-.09				.04	.07	.06			
Instrumental Support/Other Family	.07	.15	.05				.06	.06	.10			
F	3.84***			7.32**			5.51***			10.10***		
Adjusted R ²	.18			.19			.23			.24		
Block 3												
Ethnicity x Emotional Support/Partner				5.95	2.92	.51*	1.45	1.22		1.45	1.22	.29
F				4.14*			1.42			1.42		
Adjusted R ²				.21			.24			.24		

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

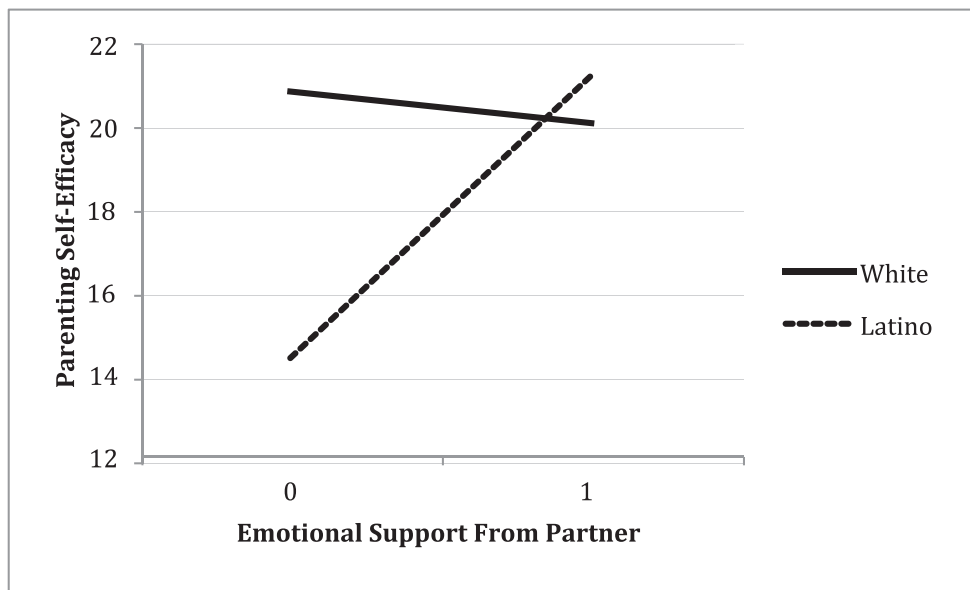


Figure 1. Graph of interaction terms: Ethnicity and partner emotional support for parenting self-efficacy.

including reliance on social support. Our work builds on this base and extends it in several ways. First, we drew upon a more differentiated conceptualization of social support by considering and comparing the type of support (instrumental and emotional) as well as its source (spouse/partner and other family and friends). Second, we focused exclusively on informal support, thus augmenting the already considerable literature on the role of such formal support mechanisms as counselors, teachers, and medical professionals. Third, we explored the factors associated with positive areas of parental adjustment, including parenting self-efficacy and life satisfaction. This is a departure from previous work, which tended to examine predictors of maladjustment or ineffective parenting. Fourth, we examined these phenomena within a socioculturally diverse sample with a particular focus on Latino families. Our findings thus extend the theoretical and empirical work on families caring for a child with ID in a number of important directions.

Our first research objective was to examine the relation between social support and parent well-being, as indexed by PSE and life satisfaction. We found that mothers who perceived their spouse as emotionally supportive were more satisfied with their lives and had stronger PSE than those who received less support. Additionally, mothers who received emotional support from other family members were more satisfied

with their lives. These findings suggest that emotional support, particularly from partners, may be more important than instrumental support for parents to feel efficacious about their parenting and satisfied with their life.

On the whole, these findings were consistent with previous research highlighting the association between emotional support and mothers' well-being (Armstrong et al., 2005; Belsky, 1984). We can offer several explanations for why emotional support is more strongly related to life satisfaction and PSE than instrumental support. First, it is possible that family members have worked out a system for allocating tasks that does not hinge on the equal distribution between mothers and their partners of the household tasks assessed in our measure of instrumental support. For example, fathers may have taken on additional work hours in order to provide more financial resources for the family. A second possibility is that mothers' psychological well-being is not as highly related to instrumental as to emotional support because the most stressful aspect of caring for a child with ID is not the additional workload but rather the emotional burden of worrying about the child's current and future quality of life. Emotional support would perhaps be more directly helpful for addressing these psychologically debilitating concerns. This is consistent with the findings of other work conducted with families who have typically developing children

(Suzuki, Holloway, Yamamoto, & Mindnich, 2009).

Our second research objective was to explore whether ethnicity and household income moderated the relationship of emotional support to PSE and life satisfaction. We found that emotional support from partners had a greater influence on the PSE for Latino mothers as compared to White mothers. This finding is particularly interesting given that Latino mothers reported receiving, on average, less emotional support from their spouse than did White mothers (see Table 2). It is possible that the potency of spousal emotional support is related to mothers' expectations of receiving it. If Latino mothers may expect less partner emotional support, this support may have more salience. If White mothers assume that their partners should provide emotional support, they may be less responsive to it, particularly at lower levels. A second possibility is that Latino mothers in this sample may be particularly dependent on partner emotional support because they feel more isolated and uncertain in their interactions with individuals and institutions outside the family (Ornelas, Perreira, Beeber, & Maxwell, 2009).

Study Limitations

This study has a number of limitations that must be considered in evaluating its impact on theory, research, and interventions with families. One limitation is that we focused exclusively on the perspective of mothers. This is appropriate in the sense that it is perceptions of social support that most powerfully relate to psychological outcomes, rather than *objective* amounts of support or *intended* amounts of social support that husbands or other family members hoped to provide (Lunsky & Benson, 2001; Taylor & Lynch, 2004). At the same time, these actors can provide important information concerning the factors that facilitate or impede their provision of support. And it would be quite interesting to learn more about the factors that contribute to spouses' own psychological well-being.

Other limitations involve the selection and makeup of our sample. On one hand, we were careful to obtain a relatively large sample of Latino families, addressing a major gap in the literature. On the other hand, the social category of "Latino" is not homogenous and masks differences of religion, social class, and country of origin. Our sample was heterogenous with

respect to country of origin as well as immigration history. Furthermore, these mothers were recruited from service agencies. They already knew how to navigate the service system and connect themselves with appropriate services for their child. Future studies that build on our exploratory work may be well advised to focus on more rural, less connected populations that share particular cultural models of parenting, immigration history, and socioeconomic status. An additional challenge in conducting work with socioculturally diverse samples is that ethnic background is frequently confounded with income. In our sample, the Latino families were considerably lower than the White families in terms of their SES, and, while we explored this difference in our multivariate analyses, it is difficult to completely disentangle these various social forces.

Implications for Family Interventions and Future Research

Our results point to several implications for service providers who work with Latino families. Rather than focusing on the primary caregivers only, service providers can broaden their perspective to the role of other adults in the household. They should take time to learn what types of support various household members are providing, as well as what type of support the primary caregivers wish to obtain from others. It may be useful for providers to consider ways of helping mothers to attain emotional support from their partners (e.g., through marital counseling), which can in turn boost mothers' feelings of confidence. Gaining this sense of confidence may not only strengthen mothers' ability to manage their child's behavioral challenges, but this confidence would allow mothers to interact effectively with members of the service system. As we have noted, Latino families frequently lack access to high-quality services for their children with an ID (Bailey et. al., 1999; Heller, Markwardt, Rowitz, & Farber, 1994; Larson, 1998; Shapiro, Monzó, Rueda, Gomez, & Blacher, 2004). If Latino mothers feel supported by their friends and family, they may be more able to advocate for the services to which their children are entitled.

In the future, we believe that additional research is needed to develop a clearer understanding of the types and sources of support that are valued by Latino families, particularly whether these types and sources of support are differen-

tially valued between mothers and fathers and extended kin networks. It is likely that qualitative research methods would be the most fruitful approach to address these topics. Second, we must acknowledge the social and political contexts in which immigrant mothers rear their children, particularly on how cultural notions of family and gender roles may explain the relation between support and well-being for mothers who care for a child with ID (Cohen, Holloway, Dominguez-Pareto, & Kuppermann, 2013; Holloway, Dominguez-Pareto, Cohen, & Kupperman, in press). Understanding these relationships using qualitative methods will allow us to obtain a nuanced perspective on how immigrant mothers utilize their resources to enhance their psychological well-being.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Armstrong, M. I., Birnie-Lefcovitch, S., & Ungar, M. T. (2005). Pathways between social support, family well-being, quality of parenting, and child resilience: What we know. *Journal of Child and Family Studies, 14*(2), 269-281. <http://dx.doi.org/10.1007/s10826-005-5054-4>
- Austin, P. C., & Brunner, L. J. (2003). Type I error inflation in the presence of a ceiling effect. *The American Statistician, 57*(2), 97-104. <http://dx.doi.org/10.1198/0003130031450>
- Baca Zinn, M., & Pok, A. Y. K. (2002). Tradition and transition in Mexican-origin families. In R. Taylor (Ed.), *Minority families in the United States: A multicultural perspective* (3rd ed.; pp. 79-100). Upper Saddle River, New Jersey: Prentice Hall.
- Bailey, D. B., Jr., Blasco, P. M., & Simeonsson, R. J. (1992). Needs expressed by mothers and fathers of young children with disabilities. *American Journal on Mental Retardation, 97*, 1-10.
- Bailey, D. B., Jr., Skinner, D., Correa, V., Arcia, E., Reyes-Blanes, M. E., Rodriguez, P., Skinner, M. (1999). Needs and supports reported by Latino families of young children with developmental disabilities. *Mental Retardation, 104*(5), 437-451. [http://dx.doi.org/10.1352/0895-8017\(1999\)104%3C0437:NASRBL%3E2.0.CO;2](http://dx.doi.org/10.1352/0895-8017(1999)104%3C0437:NASRBL%3E2.0.CO;2)
- Barry, T., Dunlap, S. T., Lochman, J. E., & Wells, K. C. (2009). Inconsistent discipline as a mediator between maternal distress and aggression in boys. *Child and Family Behavior Therapy, 31*, 1-19. <http://dx.doi.org/10.1080/07317100802701186>
- Begeer, S., El Bouk, S., Boussaid, W., Terwogt, M. M., & Koot, H. M. (2009). Underdiagnosis and referral bias of autism in ethnic minorities. *Journal of Autism and Developmental Disorders, 39*, 142-148. <http://dx.doi.org/10.1007/s10803-008-0611-5>
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83-96. <http://dx.doi.org/10.2307/1129836>
- Blacher, J., & Baker, B. L. (2007). Positive impact of intellectual disability on families. *American Journal on Mental Retardation, 112*(5), 330-348. [http://dx.doi.org/10.1352/0895-8017\(2007\)112%5B0330:PIOIDO%5D2.0.CO;2](http://dx.doi.org/10.1352/0895-8017(2007)112%5B0330:PIOIDO%5D2.0.CO;2)
- Blacher, J., & McIntyre, L. L. (2006). Syndrome specificity and behavioural disorders in young adults with intellectual disability: Cultural differences in family impact. *Journal of Intellectual Disability Research, 50*(3), 184-198. <http://dx.doi.org/10.1111/j.1365-2788.2005.00768.x>
- Blacher, J., Neece, C., & Paczkowski, E. (2005). Families and intellectual disability. *Current Opinion in Psychiatry, 18*(5), 507-513. <http://dx.doi.org/10.1097/01.yco.0000179488.92885.e8>
- Boyd, B. A. (2002). Examining the relationship between stress and lack of social support in mothers of children with autism. *Focus on Autism and Other Developmental Disabilities, 17*(4), 208-215. <http://dx.doi.org/10.1177/10883576020170040301>
- Brathwaite, D. O., & Eckstein, N. J. (2012). How people with disabilities communicatively manage assistance: Helping as instrumental social support. *Journal of Applied Communication Research, 31*, 1-26. <http://dx.doi.org/10.1080/00909880305374>
- Bricker, D., Squires, J., & Mounts, L. (1995). *Ages and stages questionnaires: A parent-completed, child-monitoring system*. Baltimore, MD: Brookes.
- Bristol, M. M. (1984). Family resources and successful adaptation to autistic children. In E. Schopler & G. B. Mesibov (Eds.), *The effects of autism on the family* (pp. 289-310). New York, NY: Plenum.
- Button, S., Pianta, R. C., & Marvin, R. S. (2001). Partner support and maternal stress in families raising young children with cerebral palsy. *Journal of Developmental and Physical Disabilities, 13*, 61-81.

- California Department of Developmental Services. (2008). *Factbook* (11th ed.). Sacramento, CA: Author. Retrieved from http://www.dds.ca.gov/FactsStats/docs/factbook_11th.pdf
- Cauce, A., & Doménech-Rodríguez, M. (2002). Latino families: Myths and realities. In J. Contreras, A. Neal-Barnett, & K. Kerns (Eds.), *Latino children and families in the United States* (pp. 3-26). Westport, CT: Praeger Publishers.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, S. R., Holloway, S. D., Dominguez-Pareto, I., & Kupperman, M. (2013). Receiving or believing in family support? Contributors to the life quality of Latino and non-Latino families of children with ID. *Journal of Intellectual Disability Research, 58*(4), 333-345. <http://dx.doi.org/10.1111/jir.12016>
- Coleman, P. K., & Karraker, K. H. (1998). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*(1), 47-85. <http://dx.doi.org/10.1006/drev.1997.0448>
- Correa, V., Bonilla, Z., & Reyes-MacPherson, M. (2011). Support networks of single Puerto Rican mothers of children with disabilities. *Journal of Child and Family Studies, 20*, 66-77. <http://dx.doi.org/10.1007/s10826-010-9378-3>
- Crnic, K. A., Greenberg, M. T., Ragozin, A. S., Robinson, N. M., & Basham, R. B. (1983). Effects of stress and social support on mothers and premature and full-term infants. *Child Development, 54*, 209. <http://dx.doi.org/10.2307/1129878>
- Crnic, K. & Low, C. (2002). Everyday stresses and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Practical issues in parenting* (Vol. 5, 2nd ed.; pp. 243-267). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Cutrona, C. E., & Troutman, B. R. (1986). Social support, infant temperament, and parenting self-efficacy: A mediational model of postpartum depression. *Child Development, 57*, 1507-1518.
- Dellve, L., Samuelsson, L., Tallborn, A., Fasth, A., & Hallberg, L. R. M. (2006). Stress and well-being among parents of children with rare disorders: A prospective intervention study. *Journal of Advanced Nursing, 53*, 392-402.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75. http://dx.doi.org/10.1207/s15327752jpa4901_13
- Dunst, C. J., Boyd, K., Trivette, C. M., & Hamby, D. W., (2002). Family-oriented program models and professional help giving practices. *Family Relations, 51*, 221-229.
- Dunst, C. J., Trivette, C. M., & Cross, A. H. (1986). Mediating influences of social support: Personal, family, and child outcomes. *American Journal of Mental Deficiency, 90*, 403-417.
- Emerson, E., Hatton, C., Llewellyn, G., Blacher, J., & Graham, H. (2006). Socio-economic position, household composition, health status and indicators of the well-being of mothers of children with and without intellectual disabilities. *Journal of Intellectual Disability Research, 50*(12), 862-873. <http://dx.doi.org/10.1111/j.1365-2788.2006.00900.x>
- Eisenhower, A., & Blacher, J. (2006). Mothers of young adults with intellectual disability: Multiple roles, ethnicity and well-being. *Journal of Intellectual Disability Research, 50*(12), 905-916. <http://dx.doi.org/10.1111/j.1365-2788.2006.00913.x>
- Fujiura, G. & Yamaki, K. (2000). Trends in demography of childhood poverty and disability. *Exceptional Children, 66*, 187-199.
- Gallimore, R., Coots, J., Weisner, T., Garnier, H., & Guthrie, D. (1996). Family responses to children with early developmental delays II: Accommodation intensity and activity in early and middle childhood. *American Journal on Mental Retardation, 101*(2), 215-232.
- Gannotti, M. E., Handwerker, W. P., Groce, N. E., & Cruz, C. (2001). Sociocultural influences on disability status in Puerto Rican children. *Physical Therapy, 81*, 1512-1523.
- Glidden, L. M., & Schoolcraft, S. A. (2007). Family assessment and social support. In J. W. Jacobson, J. A. Mulick, & J. Rojahn (Ed.), *Handbook of intellectual and developmental disabilities* (pp. 391-422). New York, NY: Springer.
- Goldenberg, C., & Gallimore, R. (1995). Immigrant Latino parents' values and beliefs about their children's education: Continuities and discontinuities across cultures and generations. *Advances in Motivation and Achievement, 9*, 183-228.
- Grolnick, W. (2003). *The psychology of parental control: How well-meant parenting backfires*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Hadadian, A. (1994). Stress and social support in fathers and mothers of young children with

- and without disabilities. *Early Education and Development*, 5, 226-235. http://dx.doi.org/10.1207/s15566935eed0503_4
- Hastings, R., & Beck, A. (2008). Practitioner review: Stress intervention for parents of children with intellectual disabilities. *The Journal of Child Psychiatry and Psychology*, 45, 1338-1349. <http://dx.doi.org/10.1111/j.1469-7610.2004.00357.x>
- Hastings, R., & Brown, T. (2002). Behavior problems of children with autism, parental self-efficacy, and mental health. *American Journal on Mental Retardation*, 107(3), 222-232. [http://dx.doi.org/10.1352/0895-8017\(2002\)107%3C0222:BPOCWA%3E2.0.CO;2](http://dx.doi.org/10.1352/0895-8017(2002)107%3C0222:BPOCWA%3E2.0.CO;2)
- Heller, T., Markwardt, R., Rowitz, L., & Farber, B. (1994). Adaptation of Hispanic families to a member with mental retardation. *American Journal of Mental Retardation*, 99, 289-300.
- Herman, S. E., & Thompson, L. (1995). Families perceptions of their resources for caring for children with developmental disabilities. *Mental Retardation*, 33, 73-83.
- Holloway, S., Dominguez-Pareto, I., Cohen, S. R., & Kupperman, M. (2014). Whose job is it? Everyday routines and quality of life in Latino and non-Latino families of children with intellectual disabilities. *Journal of Mental Health Research in Intellectual Disabilities*, 7, 104-125.
- Izzo, C., Weiss, L., Shanahan, T., & Rodriguez-Brown, (2000). Parental self-efficacy and social support as predictors of parenting practices and children's social adjustment in Mexican immigrant families. *Journal of Prevention & Intervention in the Community*, 20, 197-213. http://dx.doi.org/10.1300/J005v20n01_13
- Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25(3), 341-363. <http://dx.doi.org/10.1016/j.cpr.2004.12.004>
- Kessler, R. C. (1992). Perceived support and adjustment to stress: Methodological considerations. In H. O. F. Viel, & U. Baumann (Eds.), *The meaning and measurement of social support* (pp. 259-271). New York, NY: Hemisphere.
- Koren, P. E., DeChillo, N., & Friesen, B. J. (1992). Measuring empowerment in families whose children have emotional disabilities: A brief questionnaire. *Rehabilitation Psychology*, 37(4), 305-321. <http://dx.doi.org/10.1037//0090-5550.37.4.305>
- Larson, E. (1998). Reframing the meaning of disability to families: The embrace of paradox. *Social Science & Medicine*, 47(7), 865-875. [http://dx.doi.org/10.1016/S0277-9536\(98\)00113-0](http://dx.doi.org/10.1016/S0277-9536(98)00113-0)
- Leung, P., & Erich, S. (2002). Family functioning of adoptive children with special needs: Implications of familial supports and children characteristics. *Children and Youth Services Review*, 24(11), 799-816. [http://dx.doi.org/10.1016/S0190-7409\(02\)00240-2](http://dx.doi.org/10.1016/S0190-7409(02)00240-2)
- Liptak, G. S., Benzoni, L. B., Mruzek, D. W., Nolan, K. W., Thingvoll, M. A., Wade, C., & Fryer, G. E. (2008). Disparities in diagnosis and access to health services for children with autism: Data from the National Survey of Children's Health. *Journal of Developmental and Behavioral Pediatrics*, 29, 152-160. <http://dx.doi.org/10.1097/DBP.0b013e318165c7a0>
- López, R. A., (1999). Las comadres as a social support system. *Affilia*, 14, 24-41. <http://dx.doi.org/10.1177/08861099922093509>
- Lunsky, Y., & Benson, B. A. (2001). Association between perceived social support and strain, and positive and negative outcome for adults with mild intellectual disability. *Journal of Intellectual Disability Research*, 45(2), 106-114. <http://dx.doi.org/10.1046/j.1365-2788.2001.00334.x>
- Magaña, S., Seltzer, M. M., & Krauss, M. W. (2004). Cultural context of caregiving: Differences in depression between Puerto Rican and non-Latino Anglo mothers of adults with mental retardation. *Mental Retardation*, 42, 1-11.
- Mandell, D. S., Listerud, J., Levy, S. E., & Pinto-Martin, J. A. (2002). Race differences in the age at diagnosis among Medicaid-eligible children with autism. *Journal of Child and Adolescent Psychiatry*. 41(12), 1447-1453. <http://dx.doi.org/10.1097/00004583-200212000-00016>
- Mandell, D. S. & Novak, M. (2005). The role of culture in families treatment decisions for children with autism spectrum disorder. *Mental Retardation and Developmental Disabilities Research*, 11(2), 110-115. <http://dx.doi.org/10.1002/mrdd.20061>
- Minnes, P. (1998). Mental retardation: The impact upon the family. In J. A. Burack, R. M. Hodapp, & E. Zigler (Eds.), *Handbook of mental retardation and development* (pp. 693-712). New York, NY: Cambridge University Press.
- Olsson, M. B., & Hwang, C. P. (2001). Depression in mothers and fathers of children with

- intellectual disability. *Journal of Intellectual Disability Research*, 45(6), 535-543. <http://dx.doi.org/10.1046/j.1365-2788.2001.00372.x>
- Olsson, M. B., & Hwang, C. P. (2002). Sense of coherence in parents of children with different developmental disabilities. *Journal of Intellectual Disability Research*, 46(7), 548-559. <http://dx.doi.org/10.1046/j.1365-2788.2002.00414.x>
- Ornelas, I. J., Perreira, K. M., Beeber, L., & Maxwell, L. (2009). Challenges and strategies to maintaining emotional health: Qualitative perspectives of Mexican immigrant mothers. *Journal of Family Issues*, 30(11), 1556-1575. <http://dx.doi.org/10.1177/0192513X09336651>
- Palmer, R. F., Walker, T., Mandell, D., Bayles, B., Miller, C. S. (2010). Explaining low rates of autism among Hispanic schoolchildren in Texas. *American Journal of Public Health*, 100(2), 270-272. <http://dx.doi.org/10.2105/AJPH.2008.150565>
- Raif, R. Y., & Rimmerman, A. (1993). Parental attitudes to out-of-home placement of young children with developmental disabilities. *International Journal of Rehabilitation Research*, 16(2), 97-105. <http://dx.doi.org/10.1097/00004356-199306000-00002>
- Rydz, D., Srouf, M., Oskoui, M., Marget, N., Shiller, M., Birnbaum, R., ... Shevell, M. I. (2006). Screening for developmental delay in the setting of a community pediatric clinic: A prospective assessment of parent-reported questionnaires. *Pediatrics*, 118(4), e1178. <http://dx.doi.org/10.1542/peds.2006-0466>
- Salisbury, C. L. (1990). Characteristics of users and nonusers of respite care. *Mental Retardation*, 28, 291-297.
- Shapiro, J., Monzó, L. D., Rueda, R., Gomez, J. A., & Blacher, J. (2004). Alienated advocacy: Perspectives of Latino mothers of young adults with developmental disabilities on service systems. *Mental Retardation*, 42, 37-54. [http://dx.doi.org/10.1352/0047-6765\(2004\)42%3C37:AAPOLM%3E2.0.CO;2](http://dx.doi.org/10.1352/0047-6765(2004)42%3C37:AAPOLM%3E2.0.CO;2)
- Skolnick, J. H., Baca Zinn, M., & Wells, B. (2005). Diversity within Latino families: New lessons for family social science. In A. Skolnick & J. H. Skolnick (Eds.), *Family in transition* (pp. 420-445). Boston, MA: Pearson Education.
- Squires, J., Potter, L., & Bricker, D. (1999). *The ASQ user's guide for the Ages & Stages Questionnaires: A parent-completed, child-monitoring system* (2nd ed.). Baltimore, MD: Paul Brookes.
- Stoneman, Z., & Crapps, J. M. (1988). Correlates of stress, perceived competence, and depression among family care providers. *American Journal on Mental Retardation*, 93, 166-173.
- Suzuki, S., Holloway, S., Yamamoto, Y., & Mindnich, J. (2009). Parenting self-efficacy and social support in Japan and the United States. *Journal of Family Issues*, 30(11), 1505-1526. <http://dx.doi.org/10.1177/0192513X09336830>
- Taylor, M. G., & Lynch, S. M. (2004). Trajectories of impairment, social support, and depressive symptoms in later life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 59(4), S238-S246. <http://dx.doi.org/10.1093/geronb/59.4.S238>
- Telleen, S., Herzog, A., Kilbane, T. L. (1989). Impact of a family support program on mothers' social support and parenting stress. *American Journal of Orthopsychiatry*, 59, 410-419.
- Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: The meditational model of maternal self-efficacy. *Child Development*, 62, 918-921.
- Wallsten, S. M., Tweed, D. L., Blazer, D. G., & George, L. K. (1999). Disability and depressive symptoms in the elderly: The effects of instrumental support and its subjective appraisal. *International Journal of Aging and Human Development*, 48(2), 145-159. <http://dx.doi.org/10.2190/E48R-W561-V7RG-LL8D>
- Wan, C. K., Jaccard, J., & Ramey, S. (1996). The relationship between social support and life satisfaction as a function of family structure. *Journal of Marriage and Family*, 58(2), 502-513. <http://dx.doi.org/10.2307/353513>
- Zarembo, A. (2011, December, 11). Warrior parents fare best in securing autism services. *The Los Angeles Times*. Retrieved from <http://www.latimes.com/news/local/autism/la-me-autism-day-two.html,0,3900437.htmlstory>
- Zaroff, C. M. & Uhm, S. Y. (2012). Prevalence of autism spectrum disorders and influence of country measurement and ethnicity. *Social Psychiatry and Psychiatric Epidemiology*, 47(3), 395-398. <http://dx.doi.org/10.1007/s00127-011-0350-3>

Received 6/12/2013, accepted 3/11/2014.

We would like to acknowledge the University of California Berkeley graduate students who conducted many of the interviews and participated in data

management and analysis. Brian Shaffer and Sanae Nakagawa from the University of California San Francisco also provided valuable assistance with data collection and analysis. We would also like to thank the study participants who took time out of their busy schedules to describe their family experiences.

Authors:

Shana R. Cohen, University of California, San Diego; **Susan D. Holloway** and **Irenka Dom-**

ínguez-Pareto, University of California, Berkeley; and **Miriam Kuppermann**, University of California, San Francisco.

Correspondence concerning this article should be addressed to Shana R. Cohen, University of California, San Diego, Education Studies, 9500 Gilman Ave., La Jolla, CA 92093 (e-mail: shanarcohen@ucsd.edu).

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