

Social Support and Adjustment Among Puerto Rican Adolescent Mothers: The Moderating Effect of Acculturation

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Associations between grandmother and partner involvement and adjustment were examined among 61 Puerto Rican adolescent mothers. Results indicated that associations between grandmother involvement and adjustment were moderated by the adolescents' level of acculturation. Greater support was related to less symptomatology and parenting stress when acculturation scores were low but to more symptomatology and parenting stress when acculturation scores were high. Social support from partners was related to less symptomatology (but not parenting stress). Although coresidence with a partner was related to greater symptomatology, a significant interaction effect revealed that coresidence was associated with greater symptomatology mainly when mothers perceived their partners as providing low levels of support. Results are discussed in light of Latino cultural values and normative developmental issues. Implications for intervention strategies are also discussed.

Social support has been proposed as an important positive influence on psychological adjustment and parenting competence, especially for those parenting under conditions of high stress or social risk, such as young minority mothers (Wilcox, 1981). For adolescent mothers, research has identified both their mothers ("grandmothers") and their partners as important potential sources of support (de Anda, 1984; Flaherty, Facticeau, & Garver, 1991). However, research examining the role of partner and

grandmother involvement (i.e., social support, housing, and child-care assistance) in the adolescents' adjustment has yielded conflicting results. Moreover, the preponderance of research to date has focused primarily on White and African American teenage mothers, and little is known about the ways in which social support relates to adjustment among Latino youth. This is of concern because although birth rates have recently declined among Whites and African Americans, the rates for Latina youth have increased steadily for the past 15 years (Ventura, Martin, Curtin, & Mathews, 1997).

Given that Latino cultural traditions regarding family relationships differ from those of other groups in the United States, relations between family support and adjustment may also differ. Moreover, because Latino youth in the United States vary in level of acculturation (i.e., degree to which individuals have changed their behavior and attitudes toward those of the host society; Padilla, 1980) and adhere to Latino traditions to different degrees, it is also important to test whether level of acculturation moderates these relations. Although researchers have noted the need to test the possible interactive effects of acculturation on parenting

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This research was supported by grants from the Kent State University Applied Psychology Center. We also gratefully acknowledge the assistance of Maria Jimenez, Danielle Reeves, Pamela Lewis, Karen Saba, Douglas Van Auker, and the participants and staff at the recruitment sites.

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(Wasserman, Rauh, Brunelli, García-Castro, & Necos, 1990), this has not been done. Thus, the general aims of the present study were to examine associations between partner and grandmother support and the adjustment of Latina adolescent mothers, and to test whether acculturation level moderates these relations. We examined adjustment in terms of degree of symptomatology and parenting stress.

Grandmother Involvement and Adjustment

Research on grandmother involvement has focused on social support, residential, and child-care assistance. Grandmother social support has been found to be positively related to the adolescents' individual well-being (Leadbeater & Linares, 1992; Spieker & Bensley, 1994), educational attainment (Furstenberg, Brooks-Gunn, & Morgan, 1987), and parenting quality (Chase-Lansdale, Brooks-Gunn, & Zamsky, 1994; Unger & Wandersman, 1988). However, in recent studies, grandmother support has been related to more parenting difficulties, especially when parenting beyond the perinatal period was examined. For example, African American teenage mothers who relied more on their families for emotional and material support assumed fewer child-care duties and had more negative feelings about their children. High grandmother involvement in child care was also related to less favorable parenting behaviors among adolescents (Wise & Grossman, 1980). In a sample of African American and White teenage mothers, grandmother emotional support was positively related to the extent of grandmother involvement in child care and negatively related to the adolescent's nurturance toward her infant (Oyserman, Radin, & Saltz, 1994). Among English-speaking Latina adolescent mothers of Mexican and Puerto Rican origin, extensive grandmother support was related to lower maternal sensitivity (Contreras, Mangelsdorf, Rhodes, Diener, & Brunson, *in press*).

Similarly, recent studies focusing on residence patterns have demonstrated a negative association between coresidence with grandmothers and quality of parenting among African American and White teenage mothers (Black & Nitz, 1996; Spieker & Bensley, 1994; Unger & Cooley, 1992). These negative associations appear to be stronger among older adolescents than among younger ones (Chase-Lansdale et

al., 1994). However, in the only study to examine residential arrangements and quality of parent-child interactions among Latina adolescent mothers (Puerto Rican and Mexican origin; English speaking), coresidence with grandmothers was unrelated to parenting quality (Contreras et al., *in press*).

Overall, these studies suggest that the relations between grandmother involvement and adjustment vary across different domains (e.g., parenting, educational outcomes) with greater involvement being positively related to mastery of adolescent tasks (e.g., schooling) but negatively related to functioning in the parenting role. Similarly, residential and child-care assistance appear to show more consistent negative relations to parenting quality than does social support. The findings for coresidence are especially important given recent welfare policies requiring adolescents to reside with a parent or guardian to receive benefits (Leven-Epstein, 1996).

Although research has not uncovered the reasons for these negative relations, it has been suggested that they are due to the added conflict that is often present in the mother-adolescent relationships of teenage mothers (Davis & Rhodes, 1994). The adolescent's reliance on her mother for support at the same time that she pursues her independence is thought to increase relationship conflict and parenting stress and to affect negatively the adjustment of teenage mothers who reside with their mothers or rely on them for extensive support (Abidin, 1992; Crnic, Greenberg, & Slough, 1986). Thus, expectations regarding the development of independence during adolescence and the optimal level of involvement within mother-adolescent relationships appear to influence the extent to which teenage mothers can benefit from the support provided by their mothers.

Given the apparent importance of these expectations and the fact that Latino cultural values regarding family relationships differ from those of other groups in the United States, it is important to examine whether the relations between grandmother support and adjustment also differ. Latino values include a deep sense of familism (feelings of obligation, solidarity, and reciprocity within the family) and family member interdependence (Vega, 1995). Latina mothers turn to family members more during times of stress, are more receptive to their

child-rearing advice, and share child-care duties with members of the extended family rather than seeking outside services more often than do other groups of parents (Fuller, Holloway, & Liang, 1996; Shorris, 1992). Grandmothers have a prominent role within the extended family and are commonly in charge of child rearing when the mother is employed outside the home (Ramos-McKay, Comas-Diaz, & Rivera, 1988).

Given that Latino youths vary in the level to which they adhere to Latino traditions, relations between family support and adjustment must be examined vis-à-vis level of acculturation. Research suggests that as Latinos become more acculturated, their values begin to resemble those of the American culture (although they do not become equal; Sabogal, Marín, Otero-Sabogal, VanOss Marín, & Perez-Stable, 1987; Zambrana, Scrimshaw, Collins, & Dunkel-Schetter, 1997). For example, higher acculturation levels are related to lower levels of attitudinal familism (Sabogal et al., 1987). Thus, acculturation level may moderate associations between mother-adolescent relationships and adolescent adjustment because of the different expectations regarding these relationships held by highly acculturated versus minimally acculturated youths. Among less acculturated youths who are more likely to follow cultural traditions encouraging grandmothers' involvement and interdependence as opposed to independence-individuation during adolescence (Blos, 1967; Grotevant & Cooper, 1986; Roland, 1988), reliance on grandmothers may not be associated with greater parenting problems as found in other groups. Among more highly acculturated Latinas, who may follow American traditions and expect greater independence from their families, continued reliance on extensive grandmother support is likely to be related to greater adjustment difficulties.

Partner Involvement and Adjustment

Few studies have examined the role of partner support on the adjustment of adolescent mothers. Although some of these studies have documented a positive relation between partner support and psychological well-being (Leadbeater & Linares, 1992; Thompson & Peebles-Wilkins, 1992; Unger & Wandersman, 1988), others have failed to show a relation (Turner, Grindstaff, & Phillips, 1990). Still others have suggested that partners can be a major source of

stress (Colletta & Gregg, 1983; Musick, 1993) and that they are seldom considered to be main sources of support (García Coll, Hoffman, & Oh, 1987). In terms of parenting, partner child-care and material support were related to lower levels of maternal expressivity during mother-child interaction among White teenage mothers (Shapiro & Mangelsdorf, 1994). Among English-speaking Latinas (of Mexican and Puerto Rican origin) availability of child-care support from partners was negatively related to maternal sensitivity during unstructured interactions (Contreras et al., in press). Overall, these studies do not permit clear conclusions regarding the role of specific types of support provided by partners or the domains of functioning more likely to be associated with this support.

Understanding the role of partner involvement is especially important for young Latina mothers because they are more likely to reside with and be in long-term relationships with partners than are African American (Wasserman, Brunelli, Rauh, & Alvarado, 1994) and White teenage mothers (de Anda & Becerra, 1984). This is consistent with their cultural background. Early marriages (not prompted by unplanned pregnancies) have been historically common in Latino countries, and in the case of unplanned pregnancies, cultural traditions encourage fathers to assume their paternal role and to legitimize the offspring through marriage (García Coll & Vazquez García, 1996). This would suggest that partner involvement may play a more central role in the mothers' adjustment. However, young Latina mothers also report less child-care and emotional support from partners than do their African American (Wasserman et al., 1994) and White peers (de Anda & Becerra, 1984). The lower level of reported child-care (but not emotional) support is also consistent with their cultural background because culturally prescribed gender roles for fathers or partners do not include substantial involvement in child rearing (Shorris, 1992).

Given this pattern of findings, we were interested in examining not only direct relations between partner support and the adolescents' adjustment but also the impact of their support relative to that of the support provided by grandmothers. Grandmothers have been identified as the primary source of support for adolescent mothers (Flaherty et al., 1991), and it is important to test whether support from

partners and grandmothers make independent contributions to adjustment among Latina youth. We also wanted to test whether low partner support would be especially highly associated with poor adjustment in contexts in which relatively high levels of support might be expected, such as when the adolescent resides with her partner. Finally, given Latino traditions regarding a limited role for fathers in child rearing, we were interested in examining whether acculturation level moderated the association between child-care assistance and adjustment. More highly acculturated adolescents might expect higher levels of child-care assistance from their partners than would their less acculturated peers. Thus, although child-care assistance is likely to be positively associated with adjustment regardless of acculturation level, the strength of the relation may be greater among more highly acculturated mothers. We did not expect that acculturation level would moderate associations between other aspects of partner support (i.e., emotional support, tangible assistance) and adjustment because there is no indication that expectations regarding these types of support differ across levels of acculturation.

In sum, the main goals of the present investigation were (a) to examine the extent to which coresidence, social support, and child-care assistance from grandmothers and partners was associated with degree of symptomatology and parenting stress among young, low-income Puerto Rican adolescent mothers during their 2nd or 3rd year of parenting; (b) to test whether level of acculturation moderated these associations; and (c) to examine the relative importance of partner and grandmother support in the adjustment of these young mothers.

We chose to examine these particular criterion variables because, as compared with middle-class mothers, low-income mothers of small children (such as the mothers in our study) are at heightened risk for increased symptomatology and parenting stress (Brown, Adams, & Kellam, 1981; Ross & Huber, 1985; Sommer et al., 1993), and these variables, in turn, are related to impaired parenting (Abidin, 1992; Crnic et al., 1986; Downey & Coyne, 1990). Given that life events stress is related to adjustment in at-risk populations (McKenry, Browne, Kotch, & Symons, 1990; Wilcox, 1981), we controlled for its effects when testing our main hypotheses. Although we were primar-

ily interested in acculturation as a moderator variable, we also examined its direct associations with the criterion variables. Because prior research on acculturation and psychological adjustment among Latinos has yielded contradictory results (see Rogler, Cortés, & Malgady, 1991, for a review), and no studies have examined these variables among parenting adolescents, we did not have specific predictions regarding these direct relations.

Method

Participants

Participants were 61 young Latina mothers of predominantly Puerto Rican origin (93%). At the time of the interview, the mothers' mean age was 19.3 years ($SD = 1.8$ years; range = 15.2–22.9 years; 79% < 21.0 years); their children (51% girls) ranged in age from 12.0 to 42.0 months ($M = 20.3$; $SD = 9.3$; 89% < 36 months). The mothers' mean age at the time of delivery of the target child was 17.6 years ($SD = 1.6$ years; range = 14.2–20.2 years; 77% < 19.0). Most mothers (57.4%) had a single child, and 82% of the participating children were firstborn. Of the mothers, 25% were married and 52% reported currently having a boyfriend. Most participants had current contact with their mothers (90%). Twenty-six percent lived with one or two parents, 52.5% lived with a partner (i.e., husband, boyfriend, fiancé), and 21.7% had other living arrangements. Thirty-nine percent of the participants were attending school, and 21% had a high school diploma. Most mothers (84%) received some form of public aid, and 16% were employed. Most participants were either first- (62%) or second-generation (34%) immigrants.

Procedure

Participants were recruited through a health center, a high school, and a Program for Women, Infants, and Children office that served families residing in a low-income Latino (primarily Puerto Rican) neighborhood within a midsize, midwestern city. Three recruitment methods were used: bilingual fliers that were posted in the above sites, face-to-face contact with potential participants when they visited the sites, and word-of-mouth contacts or referrals by other participants. Recruitment took place over a 1.5-year period. In all, contact was made with 103 mothers who fit the criteria for inclusion into the study (i.e., Latina mother under 21 years of age at the time of the birth, with a child between the ages of 1 and 3 years with no major physical disabilities). Most were contacted through the face-to-face method (75% of those who participated); few (9%) initiated contact by

responding to our fliers. Of these 103 mothers, 63 agreed to participate (61%); data collection for 2 of these mothers could not be completed because of scheduling problems.

As soon as a potential participant was identified, the study procedures were explained to her and an appointment for a home visit was made at her convenience. Informed consent from the participant (and one of her parents if she was under 18 years old) was obtained prior to initiating the research procedures. Home visits were conducted by two female researchers in the participant's language of choice. Participants were interviewed while their children were videotaped during a series of play episodes by the second researcher. After the administration of the questionnaires, mothers were videotaped interacting with their children during a series of tasks. All questionnaire measures were read aloud to mothers, and answers were recorded using a computer-assisted interview procedure. Only interview data were available for this report. For their participation, mothers received a \$10 gift certificate, a copy of the videotaped interaction, and a small present for their child.

Measures

To obtain a sample representative of a wide range of acculturation levels, we translated all measures and recruitment materials into Spanish so that Latinas who were not proficient in English, and hence more likely to be relatively unacculturated, could participate. The measures were first translated into Spanish by a bicultural translator. The equivalency of the Spanish version was then examined by a team of Latina researchers from Puerto Rico and other Central and South American countries of origin (Brislin, 1970). To further test the equivalency of the two language versions, we tested the internal consistency of the scales separately for English ($n_1 = 33$) and Spanish ($n_2 = 28$) respondents, and we compared mean scores across groups. Overall, the two language versions showed a high level of equivalence. This information is presented below for each scale.

Degree of symptomatology. The Depression, Anxiety, Somatic Complaints, and Hostility scales of the Symptom Checklist-90-R (Derogatis, 1994), a self-report symptom inventory, were used to measure symptomatology. Good reliability levels have been reported for these scales (Derogatis, 1994; Soto & Shaver, 1982, for Puerto Rican adult women). In the present sample, alpha coefficients were .73 to .89 for the entire sample, .64 to .86 for the English respondents, and .74 to .91 for the Spanish respondents. To derive one overall score reflecting level of symptomatology, we standardized and averaged the scales. The internal consistency (alpha coefficient) of the resulting composite variable was .82 for the entire sample (.73 for the English respondents; .85 for the

Spanish respondents). Comparison of mean scores for English and Spanish respondents yielded a marginally significant difference, $t(59) = -1.86, p < .10$, with English respondents reporting slightly lower levels of symptomatology. This difference was no longer marginally significant when controlling for level of acculturation, $F(2, 58) = .70, ns$.

Parenting stress. Four scales of the Parenting Stress Index (Abidin, 1990) were used to assess two aspects of parenting stress. (a) Child domain stress, reflecting child-focused characteristics that lead to stress, was computed using the items of the Reinforces Parent and Acceptability scales (e.g., "My child rarely does things for me that make me feel good," "My child does a few things which bother me a great deal"). Higher scores on this scale are obtained by parents who are less accepting of the child's characteristics and perceive him or her as less rewarding. (b) Parenting role stress, reflecting perceptions of greater restriction and isolation because of the parenting role, was computed using the items of the Restriction of Role and Social Isolation scales (e.g., "I feel trapped by my responsibilities as a parent," "I often have the feeling that other people my own age don't particularly like my company"). The internal consistency of these two variables were adequate (parenting role stress $\alpha s = .85$ for the entire sample, .84 for the English respondents, and .86 for the Spanish respondents; child domain stress $\alpha s = .76$ for the entire sample, .81 for the English respondents, and .69 for the Spanish respondents). Mean scores on the two scales did not differ across language groups, $t(59) = -0.35$ and 0.20 for parenting role and child domain stress, respectively, both *ns*. These two parenting stress variables were not significantly correlated ($r = .21, ns$).

Social support. The Social Support Network Questionnaire (Rhodes, Meyers, Davis, Ebert, and Gee, 1999), a modified version of the Arizona Social Support Interview Schedule (Barrera, 1981), was used to assess perceived availability of support from the participants' mothers and partners. Adequate test-retest reliability, internal consistency, and validity have been demonstrated for this instrument (Rhodes et al., 1999), which has been successfully used with samples of minority adolescent mothers (Davis & Rhodes, 1994; Contreras et al., in press). Five support functions were assessed: emotional support, tangible assistance, cognitive guidance, positive feedback/social reinforcement, and social participation. The participants were asked to nominate persons they perceived as available to provide each of these types of support. To derive summary variables reflecting extent of support perceived to be available from grandmothers and from partners, we totaled the number of types of support for which each of them were perceived to be available. Thus, the extent of support variable could range from 0 (*the individual was not available to provide support*) to 5

(the individual was available to provide all 5 types of support). The internal consistency of this scale was adequate for both support from mothers ($\alpha = .75$, entire sample; $\alpha = .64$, English respondents; $\alpha = .83$, Spanish respondents) and support from partners ($\alpha = .89$, entire sample; $\alpha = .89$, English respondents; $\alpha = .89$, Spanish respondents). Mean scores did not differ across language of administration, $t(58) = 1.56$ and 0.54 for grandmother and partner support, respectively, both *ns*. Social support data were not available for 1 participant because of scheduling problems. Sample means were used for this participant.

Child-care assistance from partners and mothers. Participants were asked to indicate how often their mothers and partners helped with the care of the target child. Response options ranged from 0 (*never*) to 9 (*six or more times a day*). English and Spanish respondents reported similar frequency of assistance from grandmothers, $t(59) = 1.30$, *ns*, and from partners, $t(59) = -0.20$, *ns*.

Level of acculturation. A shortened version of the Acculturation Rating Scale for Mexican Americans (Cuéllar, Harris, & Jasso, 1980) was used to obtain an estimate of the participants' level of acculturation. The shortened version consists of 13 items regarding language use and preference (e.g., "What language(s) do you think in?" "What is your radio/TV viewing preference?" "What language(s) do you usually speak with friends?") rated on a 5-point scale ranging from 1 (*Spanish only*) to 5 (*English only*), with a midpoint of 3 (*Spanish and English about equally*). The mean for the overall sample was 2.8 ($SD = .89$), and the internal consistency was adequate for the entire sample ($\alpha = .92$) and within language groups ($\alpha = .78$, English respondents; $\alpha = .87$, Spanish respondents). Language use and preference has been found to be a reliable and valid indicator of the acculturation process among Latinos in the United States (Marín, Sabogal, VanOss Marín, Otero-Sabogal, & Perez-Stable, 1987; Norris, Ford, & Bova, 1996). In our sample, acculturation scores were significantly associated with commonly used validity criteria. As expected, first-generation participants (born outside of the mainland United States) scored significantly lower than those of second or later generations, $t(59) = -4.07$, $p < .0001$. Years of mainland residence ($r = .65$, $p < .0001$) and of schooling in the mainland ($r = .72$, $p < .0001$) were also significantly and positively correlated with acculturation. Finally, those who chose to respond in Spanish scored significantly lower than those who chose English, $t(59) = 8.3$, $p < .001$. Thus, our acculturation indicator appeared to be both a reliable and valid index of acculturation level.

Life stress. A modified version of the Life Events Survey (Sarason, Johnson, & Siegel, 1978), a 34-item self-report questionnaire, was used to obtain an estimate of life stress. This measure was adapted to

the lives of young minority mothers through a focus group (Rhodes, Ebert, & Fischer, 1992). It assesses the occurrence and valence of major life stressors occurring in the past year. Events are rated on a 5-point scale ranging from 1 (*extremely negative*) to 5 (*extremely positive*). The life stress score was computed by totaling the weighted scores for the events experienced as negative. Participants experienced an average of 6.4 events ($SD = 3.1$). There was no difference based on language of administration, $t(59) = 0.10$, *ns*.

Results

Sample Characteristics

Of the 61 participants, 32 (52.5%) reported currently having a boyfriend and an additional 15 (24.6%) were married. Although as expected, married participants were more likely to reside with their partners than those who had a boyfriend but were not married, $\chi^2(1, N = 47) = 10.3$, $p < .001$, these two groups did not significantly differ on extent of social support, $t(44) = -1.10$, *ns*, and child-care assistance received from partners, $t(45) = -1.65$, *ns*, nor on the three criterion variables (i.e., psychological adjustment, child domain stress, parenting role stress; all $ps > .63$). Thus, for the purposes of the analyses, we combined boyfriends and husbands into one category called "partners." In all, 47 (77%) participants had a partner. Most relationships were long-term: 42.5% of the participants who had a partner had been in the relationship for 3 or more years, and an additional 42.6%, for 1 to 3 years. Fifty-two percent of the participants lived with their partners, 26% lived with their mothers, and 21% had other living arrangements. Among those who coresided with a partner, *t* tests indicated that marital status (married or not married) was not associated with the criterion variables or with social and child-care assistance from partners. Given this, and the fact that we did not have specific predictions for those in other living arrangements, we created two dichotomous coresidence variables: coresidence with grandmothers (16 yes, 45 no) and coresidence with partners (32 yes, 29 no).

Of the participants, 79% nominated their mothers and 64% nominated their partners as available to provide at least one of the five types of social support assessed. Among those who perceived their mothers as available, the two most common types of support were tangible

assistance (83%) and positive feedback (67%); the least common were social participation (35%) and emotional support (54%). Among those who perceived their partners as supportive, social participation (80%) and tangible assistance (80%) were the most common types of support; the least common were cognitive guidance (59%) and emotional support (67%). When considering the entire sample, grandmothers were perceived as available to provide an average of 2.4 types of support; the mean of extent of social support from partners was 2.3. The average frequency of child-care assistance for the entire sample was 4.2 ($SD = 3.3$) for grandmothers and 4.8 ($SD = 3.4$) for partners (4 = *once a week*). Of the participants, 70% reported their mothers provided some help with child care and 74% reported their partners provided help. Among those who provided some assistance, the mean frequency for grandmothers was 5.9 ($SD = 2.2$), and the mean frequency was 6.5 ($SD = 2.0$) for partners (6 = *once a day*). Neither the extent of social support, paired $t(59) = 0.11$, *ns*, nor child-care assistance, paired $t(60) = -0.89$, *ns*, differed significantly across providers.

Overview of Analyses

Pearson and point biserial correlations among the main study variables appear in Table 1. We treated the three criterion variables (i.e., degree of symptomatology, child domain stress, parenting role stress) independently because they were only mildly intercorrelated: Degree of symptomatology was significantly correlated with parenting role stress and marginally correlated with child domain stress, but the two parenting stress variables were not correlated.

To examine direct and moderated associations between the involvement variables (i.e., partner and grandmother coresidence, child-care assistance, and extent of social support) and the three criterion variables, we ran hierarchical multiple regressions on the entire sample separately for grandmother and partner involvement. On the basis of conceptual considerations, we selected three control variables for these analyses (life events stress, maternal age, and length of the relationship with the partner). We controlled for life events stress in all regressions because it is associated with adjustment in at-risk populations and, although it was not related to any of the involvement variables or to acculturation in

Table 1
Pearson Correlations Among Main Study Variables

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------------------------------|---|---------|------|-------|---------|---------|------|-------|------|-------|---------|--------|
| 1. Coresid.: g.mother ^a | — | -.63*** | .06 | -.32* | .55*** | -.41*** | .12 | -.13 | .22† | -.02 | -.45*** | -.42** |
| 2. Coresid.: partner ^a | | — | -.18 | .37** | -.45*** | .68*** | -.07 | .22† | -.13 | .12 | .28* | .67*** |
| 3. Soc. sup.: g.mother | | | — | .24† | .31* | .02 | .26* | -.19 | -.05 | -.24† | -.21 | .07 |
| 4. Soc. sup.: partner | | | | — | -.23† | .57*** | .07 | -.28* | -.11 | -.02 | -.05 | .54*** |
| 5. Child care: g.mother | | | | | — | -.35** | .19 | -.12 | .20 | -.16 | -.31* | -.27* |
| 6. Child care: partner | | | | | | — | -.05 | .06 | -.07 | .03 | .15 | .69*** |
| 7. Acculturation | | | | | | | — | -.22† | -.17 | .00 | -.08 | .21 |
| 8. Symptomatology | | | | | | | | — | .24† | .37** | .13 | -.03 |
| 9. Child domain stress | | | | | | | | | — | .21 | -.03 | -.25* |
| 10. Parenting role stress | | | | | | | | | | — | .22† | .09 |
| 11. Maternal age | | | | | | | | | | | — | .19 |
| 12. Length relation with partner | | | | | | | | | | | | — |

Note. $N = 61$. Coresid. = coresidence; g.mother = grandmother; Soc. sup. = Social support.

^aValues reported are point biserial correlations.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

our sample, it was correlated with parenting role stress ($r = .29, p < .05$) and level of symptomatology ($r = .27, p < .05$). Maternal age was controlled for in analyses of grandmother involvement because grandmother involvement is more strongly related to negative parenting outcomes among older adolescents than younger ones, and in our sample, it was correlated with coresidence and child-care assistance (see Table 1). We included relationship length in all partner analyses to control for aspects of the relationship that could affect support provision. Relationship length was positively correlated with the partner involvement variables (Table 1).¹

All control variables were entered in the first step of the models. Acculturation level and the involvement variables were entered in the second step. In the last step, we entered the interaction term for acculturation and one of the involvement variables. Thus, three models were computed for each criterion variable, each model testing the interaction term for one of the three involvement variables, but including acculturation and all three involvement variables in the second step as well. Thus, each interaction was tested controlling for the main effects of all involvement variables.

Grandmother Involvement and Adjustment

Regression results for grandmother data are presented in Table 2. As suggested by bivariate correlations, there were no significant main effects, but in all cases the involvement variables showed a significant interaction with acculturation. To interpret these interactions, we plotted the predicted values of each of the three criterion variables, based on all variables in the regressions, separately for those low and high in acculturation. Cut-off scores to represent low and high acculturation were selected on the basis of the meaning of the response options in the acculturation scale. Recall that items in the scale were rated on a 5-point continuum ranging from 1 (*Spanish only*) to 5 (*English only*), with a midpoint of 3 (*Spanish and English about equally*) and were averaged to obtain a scale score. Thus, we used raw scores of 2 (-0.90 SD) and 4 ($+1.45$ SD) to represent low and high levels, reasoning that scores above 2 and below 4 likely represent a bilingual orientation.

The interaction effects were similar across models (see Figure 1 for examples). Although

the relations between grandmother involvement and symptomatology and parenting stress tended to be stronger for low acculturation scores than for high, the effects show that the directions of the slopes differ for high and low acculturation levels, indicating that acculturation moderated the relations between grandmother involvement and adjustment. Greater child-care assistance tended to be associated with greater symptomatology and child domain stress when acculturation scores were high but with less symptomatology and child domain stress when acculturation scores were low. The interaction effect of social support on parenting role stress showed the same pattern. The coresidence by acculturation effect on the two parenting stress variables indicated that among those residing with their mothers, child domain and parenting role stress were higher when acculturation scores were high but lower when acculturation scores were low. Thus, grandmother involvement had different associations with adjustment depending on level of acculturation, and the effects did not differ across domains. Moreover, because there was little overlap in variance among the three adjustment variables, grandmother involvement had relatively independent associations with each of the three criterion variables.

Partner Involvement and Adjustment

We tested whether acculturation moderated associations between partner involvement and each of the three criterion variables on the entire sample using the regression models described above. Results (data not presented) indicated that none of the interaction terms were significant; thus, the associations did not vary according to level of acculturation.

To test if partner involvement showed direct relations to the criterion variables, we ran the regressions again without acculturation and its interaction terms but with the same control variables. To examine whether coresidence moderated the relations between the support

¹ Both relationship length (see Table 1) and marital status (r range = .31 to .54, all $ps < .05$) were positively correlated with all partner involvement variables. Given that marital status and relationship length were intercorrelated ($r = .46, p < .001$) and relationship length had stronger associations with the involvement variables, we included only length and not marital status as a control variable.

Table 2
Regressions Predicting Adjustment From Grandmother Involvement by Level of Acculturation

| Variable | Symptomatology | | | | | Child domain stress | | | | | Parenting role stress | | | | |
|---------------------------------------|----------------|---------|--------|--------|---------|---------------------|---------|--------|--------|----------|-----------------------|---------|--------|---------|-------|
| | β final | | | | | β final | | | | | β final | | | | |
| | $R^2\Delta$ | β | Eq. 1 | Eq. 2 | Eq. 3 | $R^2\Delta$ | β | Eq. 1 | Eq. 2 | Eq. 3 | $R^2\Delta$ | β | Eq. 1 | Eq. 2 | Eq. 3 |
| Step 1: Control variables | | | | | | | | | | | | | | | |
| Life events | .08† | 0.25* | 0.28* | 0.28* | 0.26* | .01 | 0.07 | 0.04 | 0.05 | 0.01 | .12* | 0.27* | 0.23† | 0.24† | 0.23† |
| Maternal age | | 0.10 | -0.02 | -0.05 | -0.01 | | -0.04 | 0.10 | 0.06 | 0.11 | | 0.19 | 0.17 | 0.13 | 0.16 |
| Step 2: Main effects | | | | | | | | | | | | | | | |
| Acculturation | | -0.17 | -0.24† | -0.44* | -0.49** | .11 | -0.21 | -0.33* | -0.44* | -0.67*** | .03 | 0.07 | -0.03 | -0.29 | -0.06 |
| Coresidence | | -0.23 | -1.07† | -0.29 | -0.27 | | 0.18 | -1.14† | 0.14 | 0.14 | | 0.04 | -1.09† | -0.03 | 0.03 |
| Social support | | -0.17 | -0.20 | -0.93* | -0.16 | | -0.01 | -0.07 | -0.65 | 0.01 | | -0.17 | -0.21 | -1.14** | -0.17 |
| Child care | | 0.12 | 0.16 | 0.17 | -0.89† | | 0.18 | 0.23 | 0.22 | -1.23** | | -0.06 | -0.02 | 0.01 | -0.44 |
| Step 3: Interaction Term ^a | | | | | | | | | | | | | | | |
| Eq. 1 Coresid. \times Acc. | .03 | 0.85 | 0.85 | — | — | .09* | 1.35* | 1.35* | — | — | .06* | 1.15* | 1.15* | — | — |
| Eq. 2 Soc. Support \times Acc. | .05† | 0.88† | — | 0.88† | — | .03 | 0.73 | — | 0.73 | — | .08* | 1.12* | — | 1.12* | — |
| Eq. 3 Child Care \times Acc. | .08* | 1.17* | — | — | 1.17* | .15** | 1.63** | — | — | 1.63** | .01 | 0.44 | — | — | 0.44 |

Note. Eq. = Equation; Coresid. = coresidence; Acc. = Acculturation; Soc. = Social.

^aEach equation includes only one interaction term.

† $p < .10$. * $p < .05$. ** $p < .01$.

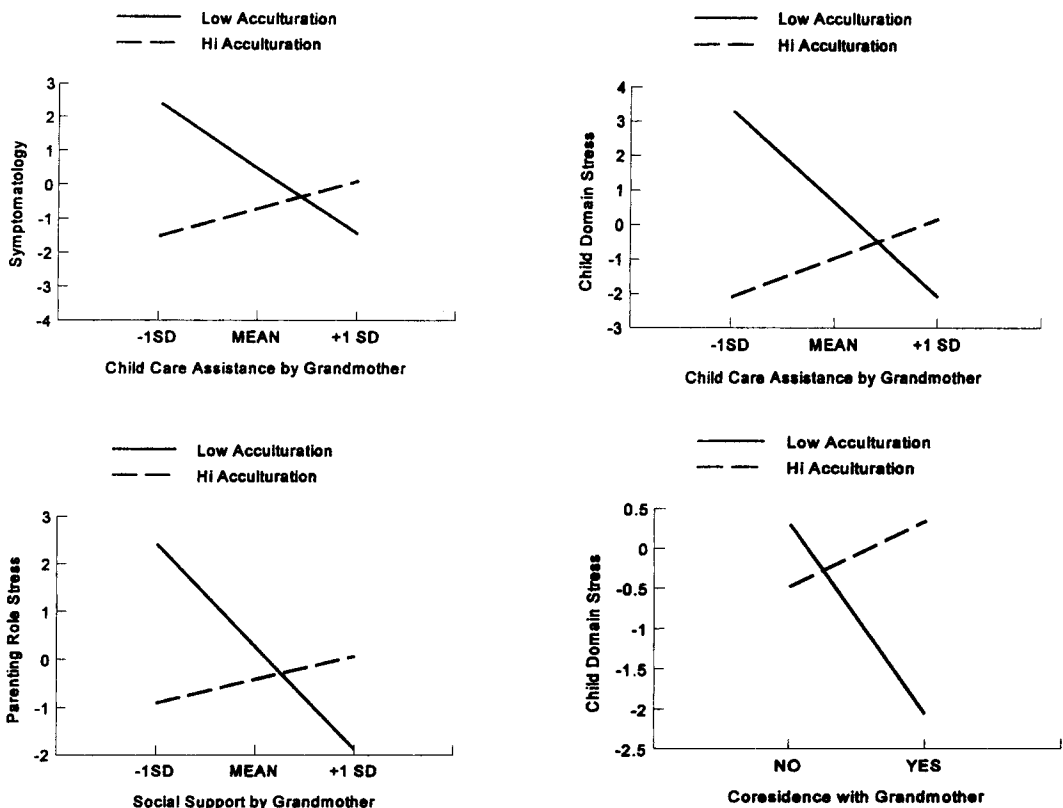


Figure 1. Illustration of interactions between grandmother involvement and acculturation on level of symptomatology, child domain stress, and parenting role stress.

variables and adjustment, we entered interaction terms in the last step of the models. As in grandmother regressions, we tested each of the two interactions separately, thus each was entered alone in the last step but with the main effects of all involvement variables entered in the second step.

As suggested by bivariate correlations (see Table 1), the partner involvement variables were unrelated to the two parenting stress variables. Regression results for symptomatology (see Table 3) indicated that after controlling for relationship length and life events, extent of social support and coresidence with partners were significant predictors. Those who perceived more extensive support reported lower levels of symptomatology. However, participants who resided with their partners reported more symptomatology than those in other living arrangements. Both interaction terms were

significant, indicating that coresidence was more strongly associated with symptomatology when social support and child-care assistance were low than when they were high.

Independence of Grandmother and Partner Contributions to Psychological Adjustment

To examine whether the grandmother and partner involvement variables contributed uniquely to the prediction of symptomatology (the only criterion variable related to partner involvement), we ran a hierarchical regression analysis including all grandmother and partner variables that showed significant associations with symptomatology. The control variables used for symptomatology in grandmother and partner regressions were entered in the first step, and all involvement variables were then entered simultaneously. Because partner social support

Table 3
*Regressions Predicting Symptomatology From Partner
 Involvement Variables*

| Variable | $R^2\Delta$ | β | β final | |
|---------------------------------------|-------------|---------|---------------|---------|
| | | | Eq. 1 | Eq. 2 |
| Step 1: Control variables | .07 | | | |
| Life stress | | 0.27* | 0.22† | 0.24* |
| Relationship length | | 0.04 | -0.32† | -0.31 |
| Step 2: Involvement variables | .20** | | | |
| Coresidence | | 0.36* | 0.94*** | 1.04** |
| Social support | | -0.40** | 0.05 | -0.45** |
| Child care assistance | | 0.16 | 0.08 | 0.63* |
| Step 3: Interaction term ^a | | | | |
| Eq. 1 Social | | | | |
| Support \times Coresid. | .10** | -0.73** | -0.73** | — |
| Eq. 2 Child Care \times Coresid. | .07* | -0.94* | — | -0.94* |

Note. Coresid. = Coresidence. Eq. = Equation.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

and child-care assistance were intercorrelated ($r = .57, p < .001$) and their respective interaction terms had similar effects on symptomatology, we combined them (standardized and averaged) into one overall support variable. Thus, partner variables were coresidence, overall support, and their interaction term. Grandmother variables included acculturation, child-care assistance, and their interaction term. Results indicated that the grandmother child-care assistance by acculturation (Final $\beta = 1.42, p < .01$) and partner overall support by coresidence (Final $\beta = -0.65, p < .001$) interactions were significant (Overall $R^2/\text{adjusted } R^2 = .47/.38, p < .0001$). Thus, grandmother and partner variables had unique and differential power in explaining variance in symptomatology.

Discussion

This study was designed to investigate associations between grandmother and partner involvement and the adjustment of Puerto Rican adolescent mothers during their 2nd or 3rd year of parenting. The study is unique in that it is the first to test if acculturation level affects relations between grandmother involvement and Latina adolescent mothers' adjustment. Results indicated that these associations were indeed moderated by acculturation level. Among relatively unacculturated young Latina mothers, greater grandmother involvement, indexed by the residential, social support, and child-care

assistance they provided, was related to lower levels of symptomatology and of parenting stress. Thus, these mothers reported fewer psychological symptoms and perceived their parenting role as less isolating or restrictive and their children as more reinforcing. In contrast, among the more highly acculturated mothers, greater grandmother involvement tended to be related to greater symptomatology and parenting stress. Although the relations between grandmother involvement and the three adjustment variables were generally weaker for high acculturation scores, the results nonetheless indicate a significant difference in the way grandmother involvement relates to adjustment across different levels of acculturation. This difference highlights the importance of considering the moderating role of acculturation when examining relations between family support and adjustment in Latino samples. It also indicates that conclusions based solely on direct associations can seriously misrepresent true relations, especially in Latino samples that include a wide range of acculturation levels.

The directions of the associations across low and high levels of acculturation are consistent with our predictions based on Latino cultural values regarding family relationships. Traditional Latino values emphasize interdependence and continued direct family involvement even after adolescence (Vega, 1995). In this family context, reliance on grandmother for support and assistance with child care is expected both

by the young mother and her mother. Thus, the young mother may be able to benefit from the support provided by her mother without suffering the cost of increased relationship strain or personal distress due to perceived failure to achieve independence from her family of origin. Among highly acculturated participants whose expectations regarding family relationships are likely to be more in line with mainstream American values, the associations between grandmother involvement and adjustment were similar to those found in samples of White and African American teenage mothers (i.e., negative associations). For these adolescents, continued reliance on grandmothers may be associated with increased personal distress because they are caught between needing their mothers for assistance and simultaneously expecting greater autonomy from them. Given that younger individuals acculturate at a faster rate than older ones (Szapocznik, Scopetta, Kurtines, & Arnalde, 1978), it is also likely that in these dyads there is increased intercultural conflict as the expectations held by the adolescent and her mother regarding their relationship and each other's roles and behaviors are likely to differ substantially (i.e., the adolescent strives to achieve independence, her mother strives to maintain interconnectedness). This intercultural conflict is likely to compound intergenerational differences and conflict, increase relationship strain, and hamper the adolescent's ability to benefit from her mother's support. This interpretation is consistent with research that has documented conflicted parent-child relationships and behavioral or adjustment problems in Cuban American families in which the adolescent is highly acculturated (Szapocznik et al., 1986).

Overall, the results suggest that the associations between grandmother involvement and psychological adjustment and parenting stress are moderated by culturally determined expectations regarding grandmother-adolescent relationships and the levels of grandmother involvement and adolescent independence that are culturally prescribed. Of course, given that we did not directly assess the participants' endorsement of cultural values, we cannot confirm our interpretation of these results. However, it is important to note that the level of acculturation, as assessed in this study through language use and preference in a variety of contexts, has been

found to be a valid measure of the extent to which Latinos have taken on important aspects of the dominant culture (Marín et al., 1987) and was strongly related to exposure to U.S. culture in our sample. Nonetheless, future studies would be strengthened through the inclusion of measures that directly assess participants' adherence to specific cultural values. In addition, studies that also assess the level of conflict and the quality of the grandmother-adolescent relationship would be useful in clarifying our interpretation, given that both adolescent distress and relationship strain should be higher in dyads where the adolescent is highly acculturated. This interpretation of our results is in line with Leadbeater and Linares's (1992) finding that parenting adolescents' perception of acceptance by their mothers was more strongly related to positive adjustment (i.e., lower levels of depressive symptomatology) than grandmother support per se, in that both suggest that it is the relationship context in which the support is embedded that could be most predictive of psychological adjustment among adolescent mothers.

The findings for partner involvement revealed that young mothers who perceived greater social support from their partners reported fewer psychological symptoms. On the other hand, young mothers who coresided with their partners reported significantly more psychological symptoms. However, these two associations were qualified by a significant interaction that indicated that the relation between support and symptomatology was particularly strong among mothers who coresided with their partners. Those young mothers who perceived lower levels of social support from their coresiding partners reported significantly more psychological symptoms. Thus, coresidence with the partner was associated with increased symptomatology mainly when partners were perceived as being relatively nonsupportive. These findings are consistent with prior studies documenting a positive relation between partner support and psychological adjustment among African American (Thompson & Peebles-Wilkins, 1992; Unger & Wandersman, 1988) and English-speaking Puerto Rican adolescent mothers (Leadbeater & Linares, 1992).

The strong associations between perceptions of low support and symptomatology observed among coresiding participants, however, is of

concern especially given that Latina adolescent mothers are more likely to be in long-term relationships with partners, yet derive lower levels of child care and emotional support from them than African American and White adolescents (de Anda & Becerra, 1984; Wasserman et al., 1994). Thus, it is critically important to not assume the young mother perceives the partner as being supportive when she coresides with him because low perceived availability of partner support in a context where support is likely to be expected or needed may have an especially detrimental effect on the young mothers' psychological adjustment.

Although partner support was strongly related to the participants' level of symptomatology, it was not directly related to parenting stress (i.e., child domain stress, parenting role stress). The reasons for this lack of association are not clear. It may be that partner involvement is associated with parenting stress only indirectly, through its association with symptomatology. In fact, level of symptomatology was significantly correlated with parenting role stress and marginally correlated with child domain stress, and partner involvement was related to symptomatology. Given Latino traditions regarding a limited role for fathers in child rearing (de Anda, 1984; Shorris, 1992), an indirect association through psychological well-being seems plausible. Of course, further research is needed to clarify relations between partner support and parenting stress. In fact, to our knowledge, this is the first empirical study that has examined direct relations between partner support and parenting stress among teenage mothers.

The results of this investigation also indicate that both grandmother and partner support had unique and independent associations with psychological adjustment. Moreover, partner support explained more variance in symptomatology than grandmother support. This finding is in line with those for marital relationships among adult parents (Belsky, 1984; Levitt, Weber, & Clark, 1986) and consistent with the fact that, in contrast to other groups of teenage mothers, a large proportion of the mothers in this study were in long-term relationships with partners.

Given the relatively small sample size and, thus, low subject-to-analyses ratio and low statistical power, it is important to replicate the results of this study with larger samples of young Puerto Rican mothers. It would also be

important to examine the extent to which our results extend to other groups of young Latina mothers in the United States. Similarly, future studies could include measures of support (e.g., grandmothers' and partners' report of involvement) or adjustment (e.g., observer ratings of parenting quality) that do not rely solely on the young mothers' report because our reliance on self-report may have influenced our results. It is important to note, however, that the significant interaction effects that we obtained suggest that our findings were not due merely to shared method variance or to participants' displaying positive or negative response sets. It is also important to note that given the cross-sectional nature of this study, it is not possible to draw conclusions regarding the direction of the observed associations. For instance, high levels of symptomatology among young mothers who reside with partners may be the cause (and not the consequence) of low levels of partner support. Prospective studies following adolescent mothers and their families across the first years of parenting would allow for more clear conclusions regarding the direction of these associations.

Finally, in terms of implications for intervention, our findings suggest that programs for young mothers can be tailored to the needs of Latina mothers by involving the partners in their intervention efforts. Although most intervention programs for adolescent mothers have not directly addressed the participants' relationships with their partners or mothers (Chase-Lansdale, Brooks-Gunn, & Paikoff, 1991), inclusion of partners appears to be especially important for young mothers who coreside with their partners yet perceive them as providing relatively little support. Programs should also address the adolescents' relationships with their families of origin, especially their mothers. Our findings suggest that they must also be sensitive to cultural variations among Latina participants. Interventions addressing the young mothers' relationships with their families of origin must consider the specific cultural context in which participants are embedded (e.g., expectations regarding family involvement) and tailor interventions accordingly. As suggested by Szapocznik and collaborators (Szapocznik et al., 1986), interventions for Latino youths should focus on helping them to develop a bicultural orientation rather than becoming unidirectionally accultur-

ated and rejecting or losing their culture of origin. This recommendation is especially relevant for Latina adolescent mothers given that many of them depend both on their extended families and mainstream systems (e.g., medical, social, school). Greater ability to negotiate their way through both cultures may allow them to maximize the benefits they derive from the support provided by their families (and especially by their mothers) as well as facilitate greater psychological and parenting competence (Gutierrez & Sameroff, 1990; Szapocznik & Kurtines, 1993).

In sum, the present study represents the first empirical investigation of the moderating role of level of acculturation on associations between family-of-origin support and symptomatology and parenting stress among Latina adolescent mothers. The results strongly argue for the need to consider the cultural context in which young mothers are embedded in order to understand the impact that grandmother support can have on their psychological well-being and levels of parenting stress. The results also highlight the importance of considering the role of partner support (and lack of support) on the psychological adjustment of adolescent Latina mothers who, although more likely to be in long-term relationships with coresiding partners, may perceive them as being relatively nonsupportive.

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Received March 30, 1998

Revision received February 3, 1999

Accepted February 9, 1999 ■