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Measuring Social Support from Mother-Figures in the Transition from Pregnancy to Parenthood among Mexican-Origin Adolescent Mothers

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Abstract

Social support for adolescent mothers, particularly from mother figures, can buffer risks and promote well-being. To date, no longitudinal research has investigated how the dimensions of social support may change during the transition from pregnancy to parenthood for adolescent mothers. This study examined stability and change in dimensions of social support from the third trimester of pregnancy to two years postpartum among 191 dyads of Mexican-origin adolescent first-time mothers and their mother figures. Perceptions of social support received from a mother figure shifted from a single dimension (i.e., global support) to three distinct factors (instrumental, emotional, and companionship support) during this transition; however, social support provision as reported by mother figures remained stable. Measurement equivalence was established across interview language (English and Spanish) and across two time points postpartum. Bivariate correlations provided support for the convergent and divergent validity of these measures. Implications for future research and practice are discussed.

Keywords

Adolescent pregnancy; transition to parenthood; social support; intergenerational relations; measurement

Adolescent mothers disproportionately experience low educational attainment and are more likely to live in poverty (Hoffman, 2008); further, their children are at risk for poorer developmental and health outcomes (e.g., Borkowski, Bisconti, Weed, Willard, Keogh, & Whitman, 2002). Importantly, social support may promote well-being and buffer risks associated with adolescent parenthood, ameliorating future disadvantage for these teens. Although conceptualized in many different ways, for the purposes of this paper social support includes an array of interpersonal supporting behaviors including emotional, tangible, cognitive guidance, positive feedback, social reinforcement, and social participation. Research on social support with adult mothers suggests that social support is related to fewer mental health problems (e.g., Dunkel-Schetter, Sagrestano, Feldman, & Killingsworth, 1996). Similarly, research with adolescent mothers suggests that social support from parental figures is associated with better mental health, more positive educational outcomes, and more effective parenting practices (e.g., Gordon, Chase-Lansdale, Matjasko, & Brooks-Gunn, 1997; Kalil, Spencer, Spieker, & Gilchrist, 1998; Sadler, Anderson, & Sabatelli, 2001).

Mexican-origin adolescent mothers, in particular, are an important subpopulation to study given that females of Mexican origin have the highest national adolescent birthrate in the United States (88.7 per 1,000 females; CDC, 2011). Thus, understanding potential buffers of risk for this population – and establishing good quality measurement for this work – is important for intervention development. Similarly, understanding the nature of social support from mother figures is particularly important for this population because *mother figures* are frequently identified as a salient source of support (Contreras, Mangelsdorf, Rhodes, Diener, & Brunson, 1999). Recent work involved the development of a measure of social support from mother figures during pregnancy for Mexican-origin adolescents that was developed in both Spanish and English and assesses support from the perspective of multiple reporters (*Global Support from Mother Figure during Pregnancy Scale* [GSMF-P]; Umana-Taylor, Updegraff, White, Herzog, Pflieger, & Madden-Derdich, 2011). However, this 6-item measure is cross-sectionally limited to the social support received during pregnancy and does not examine how dimensions of social support may change after the transition to parenthood.

Given that parenthood likely includes different stressors and needs compared to pregnancy for adolescent mothers, identifying whether the dimensions of social support (e.g., emotional, instrumental or practical, companionship) differ or remain constant throughout this critical transition period as reported by both adolescents *and* their mother figures is of particular interest. For instance, drawing from the literature on adult mothers, Cutrona (1984) found that adult mothers reported lower levels of three dimensions of social support in their third trimester of pregnancy compared to one year postpartum: Mothers reported lower levels of reassurance of worth (persons' skills and abilities are acknowledged), attachment (sense of security and safety), and social integration (a network of relationships joined by shared interests). Importantly, these results point to the need to examine if and how dimensions of social support change during this transition; however, the scale used to measure social support in Cutrona's study of *adult* mothers was a global measure that was intended to assess support received from multiple providers (e.g., a partner or spouse, parent(s), grandparents(s), friends), rather than specifically from a mother figure. Moreover, the study by Cutrona assumed that the measurement structure of social support was equivalent across time (i.e., pre- and postpartum) and did not specifically examine whether or not the actual dimensions of social support differentiated during the transition to parenthood. In another study, researchers found that the summed score of eight possible types of social support from parents during the transition to parenthood remained relatively stable for adult mothers; however, this study used a *total* score for possible types of support instead of examining if these eight dimensions of support changed over the course of the transition (Goldstein, Diener, & Mangelsdorf, 1996). That is, even though Goldstein and colleagues collected information about eight different types of support (e.g., emotional support, practical support), this information was summed instead of examined separately by type of support. Thus, research is needed that (a) focuses on how the dimensions of social support from mother figures may differentiate (or remain stable) during the transition to parenthood for adolescents, and (b) examines this transition among Mexican-origin adolescent mothers given their heightened risk for teenage pregnancy (CDC, 2011). Further, given the salient role that family plays in Mexican culture, including an emphasis on family members as a prominent source of support (Cauce & Domenech-Rodríguez, 2002; Umaña-Taylor & Updegraff, 2013), understanding mother figure support during this transition period is a particularly important focus of study.

The current study examined two waves of data from an ongoing longitudinal study of Mexican-origin adolescent mothers that were collected postpartum, and builds on initial cross-sectional work that was limited to examination of the GSMF-P scale during pregnancy (Umana-Taylor et al., 2011) to examine: (a) whether dimensions of perceived social support

when infants were 10 months (Wave 2; W2) were similar to the social support measure that was originally developed during the third trimester of pregnancy (W1; GSMF-P; Umana-Taylor et al., 2011); and (b) whether the measurement of social support established postpartum (W2) remained stable when the child was 24 months (W3).

Further, we examined the convergent (i.e., whether the measure is correlated with another construct in theoretically consistent ways) and divergent validity (i.e., whether the measure is uncorrelated with another construct when there is no conceptual reason for an association) of the finalized measures (adolescent and mother figure reports) of social support at W2 and W3. Given that previous research demonstrates positive associations between social support and psychosocial adjustment and a negative association between social support and engagement in risky behavior (e.g., Kuo, Wilson, Holman, Fuentes-Afflick, O'Sullivan, & Minkoff, 2004; Reid & Meadows-Oliver, 2007), we utilized adolescent-reported assessments of depressive symptoms, self-esteem, and engagement in risky behavior to assess convergent validity for adolescent reports of social support. To assess the convergent validity of mother figure reports of social support, we utilized mother-reported assessments of the parent-adolescent relationships (i.e., warmth/acceptance) and familism, given that previous research has established positive associations among these constructs (e.g., Borcherting, SmithBattle, & Schneider, 2005; Garcia-Preto, 1996). To assess discriminant validity for both adolescent and mother figure reports, we utilized assessments of adolescent-reported ethnic identity centrality, given that there is no conceptual reason to expect an association between these variables for either reporter.

Method

Sample

The current study utilized data from Waves 1 through 3 of an ongoing community-based longitudinal study of 204 Mexican-origin adolescent mothers and their mother figures (e.g., mother, grandmother). Because the current study focuses on the transition to parenthood, we limited the sample to include only dyads where the adolescent became a mother for the first time at Wave 1 of the study ($n = 191$). At W1, adolescents were on average 16.19 years ($SD = .97$, range = 15–18 years), and their mother figures were on average 40.78 years ($SD = 6.78$, range = 21–78 years). Most adolescents were born in the United States (63.4%), whereas 68.6% of the mother figures were born in Mexico. The average household income of the adolescents (as reported by mother figures) was \$27,951 annually ($SD = \$20,186$), ranging from \$94 to \$114,000. Approximately 18% ($n = 35$) of the adolescents were employed and their average hourly wage was \$6.91 ($SD = \3.53). Most of the adolescents (88.0%) co-resided with their mother figures at W1.

Procedure

Adolescents were recruited from community agencies and schools in a southwestern urban region of the United States to participate in the study during their third trimester of pregnancy. Eligibility criteria for the study included that adolescents (ages 15–18) identify as Mexican origin, be pregnant, not be legally married, and have a mother figure who was also willing to participate in the study. Adolescents and their mother figures were interviewed separately and each interview lasted approximately 2.5 hours. Interviews were conducted in either Spanish (adolescents = 37%; mother figures = 69%) or English. W1 interviews were conducted when the adolescent was in her third trimester of pregnancy (i.e., average of 30.79 weeks of pregnancy [$SD = 4.49$]), W2 interviews occurred when the adolescent's child was 10 months old, and W3 interviews took place when the child was 24 months old. Adolescents and their mother figures each received \$25 for participation in the home interviews at W1, \$30 at W2, and \$35 at W3. The study protocol was approved by the

university's institutional review board. Nearly 98% of dyads were retained from Wave 1 to Wave 2 and 89% of the dyads were retained from Wave 1 to Wave 3, with at least one member continuing to participate in the study.

Measures

Social support from mother figures was assessed from the perspective of *both* adolescents and mother figures with an adapted version of the 29-item Global Support from Mother Figure during Pregnancy Scale (GSMF-P; Umana-Taylor et al., 2011). At W1, the items assessed support in relation to *pregnancy*; thus, the adaptation for W2 involved changing the items to be relevant to support in relation to *parenting*. For example, for adolescents, the item "I could get help related to my pregnancy from (my mom/mother figure name), such as a ride to the doctor or clothes for the baby" asked at W1 became "I could get help related to my parenting from (my mom/mother figure name), such as a ride to the doctor or clothes for the baby" at W2. Items were rated on a 5-point Likert-type scale, ranging from *Not at all* (1) to *Very Much* (5). W3 items were identical to W2 items.

Convergent and divergent validity were tested using the following measures assessed at W2: adolescent-reported depressive symptoms (20-item CES-D; Radloff, 1977; $\alpha = .87$), adolescent-reported self-esteem (10-item Rosenberg Self-Esteem Scale; Rosenberg, 1979; $\alpha = .81$), adolescent-reported engagement in risky behaviors (24-items; Eccles & Barber, 1990; $\alpha = .89$), adolescent-reported ethnic centrality (5-items; Fuligni, Witcow, & Garcia, 2005; Sellers, Rowley, Chavous, Shelton, & Smith, 1997; $\alpha = .66$), mother figure reports of warmth/acceptance toward the adolescent (8-item short form of the Parental Behavior Inventory; Schwarz, Barton-Henry, & Pruzinsky, 1985; $\alpha = .78$), and mother figure reports of familism values (16-item subscale of the Mexican American Cultural Values Scale; Knight et al., 2010; $\alpha = .82$).

Two separate bilingual individuals translated all measures into Spanish and then back-translated them into English. Discrepancies that arose during this process were resolved following guidelines outlined by Knight, Roosa, and Umaña-Taylor (2009).

Results

Analytic Approach

The first step of the analysis used confirmatory factor analysis (CFA) to test whether the unidimensional 6-item structure of the GSMF-P scale that was identified at W1¹ (Umana-Taylor et al., 2011), when the adolescent was in her third trimester of pregnancy, adequately fit the data at W2, when the target child was 10 months old. Because this initial step did not result in acceptable model fit, we then conducted an exploratory factor analysis (EFA) with geomin rotation, using procedures discussed in the initial publication of the scale (Umana-Taylor et al., 2011), to identify the best fitting structure of social support at W2 for both adolescents and mother figures. After W2 measurement was established for both reporters, measurement equivalence by language of interview (English or Spanish) and the longitudinal equivalence of measurement from W2 to W3, when the target child was 24 months, were examined. Tests of language and longitudinal equivalence provide a stringent evaluation of a measure, which is particularly important when conducting work with different language versions of a measure (Knight et al., 2009) and in developmental studies (e.g., Hofer, Thorvaldsson, & Piccinn, 2012). All analyses were conducted in *Mplus*

¹Umana-Taylor et al., 2011 published a 6-item version of the GSMF-P that demonstrated equivalence across reporters and language (i.e., Spanish, English) versions of the instrument and provided support for its reliability and validity.

(Muthén & Muthén, 2010). After final measurement models were derived we examined the validity of the measures via bivariate correlations.

Multiple indices were used to assess model fit including the chi-square statistic, Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Overall, model fit was considered good (or acceptable) when the chi-square statistic was not significant, when the CFI was greater than or equal to 0.95 (0.90), or when the RMSEA value was less than or equal to 0.05 (0.08) (Kline, 2011). Measurement equivalence by language of interview and the longitudinal equivalence of measurement from W2 to W3 were tested by establishing the tenability of invariance constraints (e.g., Little, Card, Slegers, & Ledford, 2007; Little, Preacher, Selig, & Card, 2007). Three levels of invariance were examined: configural invariance, loading invariance, and intercept invariance (described in depth by Little, Card, Slegers, & Ledford, 2007). Tests of invariance were evaluated by examining the change in chi-square statistic (where a non-significant change in chi-square suggests that the constraints are tenable) and the change in CFI ($< .01$ is acceptable) (Kline, 2011). Missing data were handled using full information maximum likelihood (FIML) in *Mplus* (Muthén & Muthén, 2010), given that this approach maximizes statistical power and minimizes problems due to bias created by item missingness (e.g., Schafer & Graham, 2002).

Initial Measurement Assessments with Wave 2 Reports

The initial confirmatory factor analysis (CFA) models with the 6-item measure at W2 resulted in different conclusions by reporter: the model achieved excellent fit for mother figures ($\chi^2(df = 9) = 8.93, p = .44$; CFI = 1.00; RMSEA = .00), whereas the adolescent model had poor fit ($\chi^2(df = 9) = 61.698, p < .001$; CFI = .91; RMSEA = .18). Thus, the 6-item measurement structure from W1 was retained for mother figures at W2 but not for adolescents (see Table 1 for W2 items for mother figures in the second column).

Exploratory factor analysis (EFA) was used to determine a new structure for adolescents using the original 29 items (the content of the 29 items is available upon request). Items were dropped from the analysis that did not load at least 0.40 on any single factor or demonstrated substantial cross-loading among factors. Items that did not meet these criteria were removed one at a time and a new EFA was conducted at each step of the model until a final model was achieved that met item criteria and had an interpretable solution. After a series of models were tested, a model with 15 items and 3 factors (see Table 1, column 2 for specific items for adolescents) was determined to have the best fit ($\chi^2(df=87) = 187.13, p < .001$; CFI = .94; RMSEA = .08). The first factor had 7 items and was consistent with notions of emotional support. The second factor had 4 items and was consistent with conceptualizations of instrumental and informational support. Finally, the third factor had 4 items and was consistent with notions of companionship support. Notably, the model fit of this 15-item social support structure with 3 factors for *mother figures* was poor ($\chi^2(df=87) = 248.2, p < .001$; CFI = .79; RMSEA = .10), suggesting that the 6-item measure that was presented above is the most appropriate structure for mother figures.

Examinations of Measurement Equivalence across Language and Time

Once measures were established for both adolescents and their mother figures, we examined the measurement equivalence of W2 items across language of interview groups (English compared to Spanish). Tests of configural, loading (weak), and intercept (strong) invariance resulted in non-significant chi-square differences for adolescents and mother figures (see Table 2), suggesting that items assessing social support at W2 have the same measurement properties for participants who completed the interview in Spanish and English.

We also explored whether our measurement of social support was equivalent from W2, when the child was 10 months old, to W3, when the child was 24 months old. Configural invariance was evident from W2 to W3 for adolescents. The test of loading invariance resulted in a significant difference in chi-square values ($\Delta\chi^2(\Delta df) = 30.88 (12), p < .05$) for adolescents; however, the change in CFI was less than .01 suggesting that longitudinal loading invariance was established (e.g., Kline, 2011). Further, the test for intercept invariance resulted in a non-significant difference in chi-square values, suggesting that measurement properties did not vary for adolescents from W2 to W3 (see Table 2). Finally, tests of configural, loading, and intercept invariance for mother figures resulted in non-significant differences in chi-square values, suggesting that measurement did not vary for mother figures from W2 to W3 (see Table 2). In sum, measurement invariance by language of interview (English and Spanish) and across time (W2 to W3) was established for both adolescents and their mother figures.

Validity of Social Support Measures

Finally, using the W2 solutions for adolescents and their mother figures we examined the construct validity (i.e., convergent and divergent validity) of the derived social support scales using bivariate correlations to provide additional support for the validity of these measures. Scale scores were computed by taking the mean of the items (see Table 3 for alphas, means, and standard deviations by reporter).

As expected, adolescent reports of all three dimensions of social support were positively related to self-reported self-esteem (r s ranged from .15 to .23, p s < .05) and negatively related to self-reported depressive symptoms (r s ranged from $-.20$ to $-.30$, p s < .01). Only emotional support ($r = -.17, p < .05$) was negatively associated with self-reported engagement in risky behavior whereas neither instrumental nor companionship support was significantly associated with risky behavior (r s = .04 and $-.11$, respectively, p s > .05). Additionally, none of the dimensions of social support for adolescents were related to ethnic centrality (r s ranged from $-.13$ to .02, p s all greater than .05), which suggests that our measure has divergent validity for adolescents. Finally, mother figure reports of social support were positively related to mother-reports of warmth/acceptance and familism values (r s = .46 and .23, respectively, p s < .01), as expected. Further, mother figure reports of social support were not significantly related to adolescent-reported ethnic centrality ($r = .12, p > .05$), providing support for the divergent validity of the measure with mother reporters.

Discussion

Our results suggest that as Mexican-origin adolescent mothers transition from pregnancy to parenthood, their perceptions of the dimensions of social support that they receive from their mother figures become more differentiated, whereas mother figures' perceptions of the types of social support they provide to their daughters remain stable. Given that social support is considered to be an important promotive and protective factor for Latina adolescent mothers, and because teen mothers often rely heavily on families-of-origin for support (Contreras et al., 1999), these findings have important implications for future research (e.g., use of these newly developed and validated measures in future research on adolescent mothers and their family relationships during the transition to parenthood) and for future prevention and intervention efforts (e.g., programs to boost these different facets of social support after the birth of a child). Further, these results provide initial evidence for the validity and reliability of the adapted version of the GSMF-P scale (Umana-Taylor et al., 2011) for use with Mexican-origin adolescent mothers and their mother figures *postpartum* (from this point forward referred to as the *Global Support from Mother Figures – Postpartum Scale [GSMF-PP]*).

Overall, the GSMF-PP scale demonstrated strong internal consistency for both adolescents and mother figures, and importantly, measurement equivalence was established across language of interview (English and Spanish) and across the initial years of parenting (i.e., from infancy to toddlerhood). Language equivalence is critical for measurement validation in research with Latino populations given that the majority of Mexican-origin individuals in the United States speak Spanish at home (U.S. Census, 2010). Thus, to maintain the credibility of the measure and the statistical and conceptual inferences drawn from its use, the items must conceptually and empirically have the same meaning across Spanish and English (e.g., Knight et al., 2009).

Consistent with previous work (e.g., Sieger & Renk, 2007), we found that adolescents who reported higher levels of all three dimensions of support also reported higher self-esteem and lower levels of depressive symptoms. Further, adolescent mothers who reported higher levels of emotional support also reported less engagement in risky behaviors; however, there was not a significant association between risky behavior and the other two dimensions of support (instrumental and companionship support). Emotional support, when compared to instrumental or companionship support, may be more saliently related to engagement in risky behavior given that this type of support involves behaviors such as asking their mother figure for advice about personal problems or involving the mother figure in problem solving during a personal crisis. Thus, the emotional support items may best capture the possibility that mother figures are providing advice to avoid risk taking behaviors, whereas the features present in the instrumental support (e.g., providing information related to parenting) or companionship support (e.g., going shopping together) subscales may not influence risk taking behaviors. This is consistent with previous research on social support which suggests the importance of delineating the features of contexts of social support when considering links to well-being (e.g., Rook & Underwood, 2000). For mother figures, social support was positively related to warmth/acceptance and familism values, a finding that was consistent with previous studies (e.g., Umana-Taylor et al., 2011; Borcherting et al., 2005). Taken together, these findings provide initial support for the construct validity of our adapted measures and provide additional evidence that social support from a mother figure is a critical construct to assess in this population given that it has implications for adolescent well-being and engagement in risky behavior. That is, future prevention and intervention efforts that focus on Mexican-origin adolescent mothers should consider including a focus on bolstering social support from a mother figure during the transition from pregnancy to parenthood.

Most notably, our findings also suggest that the conceptualization (and measurement) of social support from mother figures varies as a function of the transition to parenthood for adolescent mothers. This is the first study to empirically examine *how* the dimensions of social support change for adolescent mothers during this transition. That is, whereas only a single dimension of social support emerged in the initial study (Umana-Taylor et al., 2011) for both adolescents and their mother figures when the adolescents were in their third trimester of pregnancy, adolescent reports of social support differentiated into three distinct dimensions of support after the birth of their child whereas mother figure reports remained stable. Further, we also demonstrated that the dimensions of social support provided by a mother figure during the initial months of the child's life (i.e., W2 in the current study) remain stable as her child transitions into the toddler years (i.e., W3). The mother figure and adolescent conceptualizations differentiated *after* the birth of the child, suggesting that although mother figures tended to view the social support they provided to the adolescent more globally (i.e., there were not distinct subscales of support in the original 6-item scale), adolescents tended to compartmentalize the types of social support they perceived from their mother figures after the birth of their child (i.e., 3 unique factors emerged only for adolescents). This finding has important implications for future research on social support

during this transition period and for understanding the complex dyadic relationship between adolescent mothers and their mother figures, such that future research could benefit from examining how these different types of postpartum support may be differentially related to the adolescent's well-being, her parenting skills, and her child's development.

Limitations and Future Directions for Research

Although our study had several strengths (e.g., prospective longitudinal design, multiple reporters, inclusion of both Spanish and English speaking participants), it is important to recognize the limitations of the current research. First, our study is limited in its generalizability to other Latino groups (i.e., individuals with national origins other than Mexico), and thus future research and measurement validation is needed to examine how appropriate the measure is for use with other subpopulations. Nonetheless, because Mexican-origin adolescent females demonstrate the highest risk for teenage pregnancy in the United States (CDC, 2011), this limitation is also a strength of the study given the need to develop culturally-sensitive measurement tools to build a base of knowledge that can inform prevention and intervention efforts with this high risk population (e.g., Knight et al., 2009). Second, our focus on mother figures as providers of social support is limited in that it does not take into account the social support the adolescent mother may be receiving from the baby's father, romantic partners, other family members, community support agencies, or other sources. Thus, future research should examine whether the measurement tools developed in this study to assess social support during parenting of infants and toddlers is applicable to assess support from other sources. Nonetheless, given that research has identified that mother figures are a prominent source of support for Latina adolescent mothers (e.g., Contreras et al., 1999), this is also a strength of the current study.

Beyond examining whether this measure works similarly in other Latino subpopulations and across different providers of support, it is also important for future research to continue to examine whether or not the dimensions of social support remain stable throughout the course of the child's development. For instance, do the dimensions of social support perceived by adolescent mothers change once the child is enrolled in school? Further, do mother figure reports of the social support they provide to adolescent mothers remain stable throughout the course of their grandchild's development? These questions will be important to address as social support is related to parenting practices (Gordon et al., 1997; Kalil et al., 1998; Sadler et al., 2001), which are in turn related to children's developmental and health outcomes. Given that children of Mexican-origin adolescent mothers are at increased risk for poor developmental outcomes (Fuller et al., 2009), understanding processes that may buffer this risk and promote positive development are important. Future investigations could examine how the different dimensions of social support from mother figures as reported by adolescent mothers are associated with parenting self-efficacy, which then likely inform children's development.

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Table 1

Finalized Items of the GSMF-P across the Transition from Pregnancy to Parenthood.

Wave 1 (Third Trimester of Pregnancy)	Waves 2 and 3 (Child was 10 and 24 Months, respectively)
ADOL: I could get help related to my pregnancy from (my mom/MF Name), such as a ride to the doctor or clothes for the baby. FFM: (Adolescent name) could get help related to her pregnancy from me, such as a ride to the doctor or clothes for the baby.	ADOL: (<i>Instrumental</i>) I could get help related to my parenting from (my mom/FFM Name), such as a ride to the doctor or clothes for the baby. FFM: (Adolescent name) could get help for the baby from me, such as a ride to the doctor or clothes for the baby.
ADOL: I get advice from (my mom/MF Name) about problems related to my pregnancy. FFM: (Adolescent name) gets advice from me about problems related to her pregnancy.	FFM: (Adolescent name) gets advice from me about problems related to her baby.
ADOL: (My mom/MF Name) provides helpful information about pregnancy. FFM: I give (Adolescent name) helpful information about pregnancy.	ADOL: (<i>Instrumental</i>) (My mom/FFM Name) provides helpful information about parenting. FFM: I give (Adolescent name) helpful information about parenting.
ADOL: When I need suggestions on how to deal with a personal problem, (my mom/MF Name) gives me good advice. FFM: When (Adolescent name) needs suggestions on how to deal with a personal problem, I give her good advice.	ADOL: (<i>Emotional</i>) When I need suggestions on how to deal with a personal problem, (my mom/FFM Name) gives me good advice. (<i>Emotional</i>) FFM: When (Adolescent name) needs suggestions on how to deal with a personal problem, I give her good advice.
ADOL: I feel that I can share my worries and fears with (my mom/MF Name). FFM: (Adolescent name) feels that she can share her worries and fears with me.	ADOL: (<i>Emotional</i>) I feel that I can share my worries and fears with (my mom/FFM Name). FFM: (Adolescent name) feels that she can share her worries and fears with me.
ADOL: I feel like I can confide in (my mom/MF Name) about pregnancy issues. FFM: (Adolescent name) feels comfortable confiding in me about pregnancy issues.	FFM: (Adolescent name) feels comfortable confiding in me about parenting issues.
	ADOL: (<i>Emotional</i>) I can talk with (my mom/FFM Name) about something personal or private, such as if I had something on my mind that was worrying me or making me feel sad.
	ADOL: (<i>Emotional</i>) I would go to (my mom/FFM Name) if I needed advice or information.
	ADOL: (<i>Emotional</i>) I feel comfortable talking to (my mom/FFM Name) about intimate personal problems.
	ADOL: (<i>Emotional</i>) If a family crisis arose, (my mom/FFM Name) would give me good advice about what to do.
	ADOL: (<i>Emotional</i>) I get the emotional support I need from (my mom/FFM Name).
	ADOL: (<i>Instrumental</i>) I get good ideas about parenting from (my mom/FFM Name).
	ADOL: (<i>Instrumental</i>) (My mom/FFM Name) provides me with a place to live, if I need it.
	ADOL: (<i>Companionship</i>) (My mom/FFM Name) and I get together to have fun and relax.
	ADOL: (<i>Companionship</i>) (My mom/FFM Name) and I did some activity together to distract me from my worries.
	ADOL: (<i>Companionship</i>) If I wanted to go out for awhile, such as to lunch or shopping, (my mom/FFM Name) would go with me.
	ADOL: (<i>Companionship</i>) If I wanted to go to a movie, (my mom/FFM Name) would go with me.

Note. ADOL = adolescent mother. FFM = female family member (aka mother figure). For Waves 2 and 3, the adolescent subscales for the measure are listed in the parentheses prior to the item content (i.e., instrumental, emotional, or companionship).

Measurement Equivalence by Language of Interview (English vs. Spanish) and Across Time (Wave 2 vs. Wave 3) by Reporter.

Table 2

Model	χ^2	df	p	$\Delta\chi^2$ (Δdf)	p	CFI	Constraint Tenable
W2 Adolescent Language (English vs. Spanish)							
Configural Invariance	291.471	174	< .05	---	---	.946	---
Loading Invariance	306.259	186	< .05	14.788 (12)	> .05	.945	Yes
Intercept Invariance	321.736	198	< .05	15.477 (12)	> .05	.943	Yes
W2 Mother Figure Language (English vs. Spanish)							
Configural Invariance	18.579	18	> .05	---	---	.997	---
Loading Invariance	20.136	23	> .05	1.557 (5)	> .05	1.00	Yes
Intercept Invariance	27.926	28	> .05	7.790 (5)	> .05	1.00	Yes
Adolescent – Across Waves (Wave 2 to Wave 3)							
Configural Invariance	660.326	375	< .05	---	---	.942	---
Loading Invariance	691.205	387	< .05	30.879 (12)	< .01	.938	Yes
Intercept Invariance	704.389	399	< .05	13.184 (12)	> .05	.938	Yes
Mother Figure – Across Waves (Wave 2 to Wave 3)							
Configural Invariance	40.725	47	> .05	---	---	1.00	---
Loading Invariance	45.322	52	> .05	4.597 (5)	> .05	1.00	Yes
Intercept Invariance	52.811	57	> .05	7.489 (5)	> .05	1.00	Yes

Note. Ns = 187 for adolescents and 175 for mother figures. CFI = comparative fit index. The configural invariance model places no constraints across the different groups (or time points). Loading invariance constrains the factor loadings across groups (or time points) to be equal. Intercept invariance constrains the intercept means to be equal across groups (or time points) (described in depth by Little, Card, Slegers, & Ledford, 2007).

Table 3

Means, Standard Deviations, and Reliability Coefficients of GSMF-PP Subscales.

Subscale	Range	n of items	Wave 2			Wave 3		
			M	SD	α	M	SD	α
AR: Emotional Support	1 – 5	7	3.90	1.05	.95	3.75	1.13	.96
AR: Instrumental Support	1 – 5	4	4.42	0.75	.83	4.17	0.98	.91
AR: Companionship Support	1 – 5	4	3.36	1.06	.83	3.25	1.09	.86
MFR: Social Support	1 – 5	6	4.38	0.49	.76	4.31	0.57	.81

Note. AR = Adolescent report. MFR = Mother figure report.