Prenatal expectations in Mexican American women: Development of a culturally-sensitive measure

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Abstract

Purpose—*Prenatal expectations* describe various domains a woman envisions in preparation for her role as a new mother and influence how women transition into the maternal role. Although the maternal role is strongly influenced by the prevailing familial and sociocultural context, research characterizing prenatal expectations in ethnic minority and low-income women is lacking. As part of the largest growing minority group in the U.S., Latina mothers represent an important group to study.

Methods—Two hundred and ten low-income Mexican American women were administered the Prenatal Experiences Scale for Mexican Americans (PESMA) that was adapted to capture specific cultural aspects of prenatal expectations. Measures of current support, prenatal depressive symptoms, and other sociodemographic characteristics were also completed to assess validity.

Results—Exploratory factor analysis identified three underlying factors of prenatal expectations: *Paternal Support, Family Support*, and *Maternal Role Fulfillment.* Associations among these subscales, and demographics and cultural variables were conducted to characterize women who reported higher and lower levels of expectations. The PESMA demonstrated good concurrent validity when compared to measures of social support, prenatal depressive symptoms, and other sociodemographic constructs.

Conclusions—A culturally sensitive measure of prenatal expectations is an important step towards a better understanding of how Mexican American women transition to the maternal role and identify culturally specific targets for interventions to promote maternal health.

Keywords

expectations; pregnancy; Mexican American; social support; family support

Introduction

The transition to motherhood begins prenatally, with preparations for the parental role. Becoming a mother has been described as a transformational process during which women anticipate and cognitively "rehearse" for their postpartum role by forming expectations of what life may be like following childbirth (Lederman 1996). The construct of *prenatal expectations* has been used in prior research to describe various domains of parenthood that a woman envisions during pregnancy. The maternal role has been described as a "social construct" with qualities that are strongly influenced by the prevailing familial and

sociocultural context (Guendelman et al., 2001; Sagrestano et al., 1999). Yet research characterizing maternal prenatal expectations has been largely conducted among samples of middle-class, Caucasian women, with little attention to how ethnic minority and low-income women approach motherhood. As the largest minority group in the United States with fertility rates 30–40% higher than any other ethnic group (Hamilton et al., 2005; U.S. Census Bureau 2011), Hispanic mothers represent a particularly important cultural group to study. Among Hispanic women, Mexican Americans[2] have the highest birthrates (Hamilton 2011) and are also more likely to be exposed to life stressors that may bear considerably on the pregnancy period, including decreased likelihood of having insurance, lower levels of financial resources, and increased discrimination (Garcia-Esteve et al., 2004). The unique socioeconomic and psychosocial risk factors facing Mexican American women during the transition to parenthood support a dedicated study of their prenatal experiences. The current study describes the psychometric properties of an existing measure that was adapted to evaluate prenatal expectations among low-income Mexican American pregnant women and explores the demographic, cultural, and psychosocial correlates of women's anticipated views of the early postpartum period.

Forming expectations serves an important purpose during major transitions, countering the uncertainty associated with significant life changes by contributing to the sense that events are predictable and under one's personal control (Lawrence et al., 2007). Rubin (1984) suggested that prenatal expectations are conjectures or hypotheses of what parenthood will entail that originate from values, prior experiences, and contexts with which women approach the maternal role. Expectations formed prenatally about the postpartum period may be adaptive, preparing women to cope with parenting stressors and successfully transition into the maternal role following the birth of a child. Pancer et al. (2000) observed that pregnant women who envisioned more positive infant caring experiences experienced lower levels of depression and increased self-esteem following childbirth as compared to women who endorsed poorer expectations for the postpartum period.

In prior research, frequently assessed domains of prenatal expectations include women's projections about parenting self-efficacy, fulfillment anticipated from the maternal role, expected changes in employment, lifestyle or household responsibilities, anticipated receipt of social support during the early postpartum period from her partner and family, and assumptions of positive/negative changes in other social relationships (Coleman et al., 1999; Delmore-Ko et al., 2000; Kiang et al., 2004; McHale et al., 2004; Tamis-Lemonda and Kahana-Kalman 2009). Categories of prenatal expectations have been formed on the basis of qualitative analysis of in-depth prenatal interviews (Delmore-Ko et al., 2000; Pancer et al., 2000; Tamis-Lemonda and Kahana-Kalman 2009) and quantitative analysis of self-report scales (Coleman et al., 1999; Kiang et al., 2004; McHale et al., 2004). Expectations may vary along a continuum of very positive to very negative; although expectant mothers may anticipate parenthood with enthusiasm and excitement, the prenatal period may also be marked by significant concerns about the challenges of caring for a newborn (Fox et al., 2000).

Although little is known about the demographic and psychosocial characteristics of women who form higher and lower prenatal expectations, previous experience with infants and confidence in one's ability to handle the care of a newborn baby may contribute to more positive expectations for transitioning into the maternal role. Other characteristics such as family context, socioeconomic status, and maternal education level may also bear on the formation of prenatal expectations. For example, anticipated postpartum paternal support

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[2]For the purposes of this research, "Mexican American" refers to any women of Mexican heritage residing in the US, regardless of nativity or citizenship.

may be higher among women married to and/or residing with the father of their baby, while expectations of the financial impact of a child may vary depending on women's socioeconomic status and levels of current financial hardship. Additionally, relations between expectations and prenatal mood are important to explore, as negative prenatal expectations have been posited to correlate with prenatal distress (Lucas 2010). Prenatal distress, in turn, has been associated with poor birth outcomes and elevated risk of postpartum depression (Field 2011).

Prenatal expectations likely vary across cultures, but ethnic and cultural considerations have rarely been addressed in prior studies. The influence of social and ecological forces on maternal prenatal expectations may be accentuated among Mexican American women for whom the meaning of motherhood is shaped by strong cultural values and norms related to motherhood and family relationships. Hispanic women have been described as adhering strongly to *familism* values that emphasize attachment to the nuclear and extended family (Germán et al., 2009; Rafaelli and Ontai 2004) and prior qualitative research has observed that the prenatal expectations of Mexican American women are more likely include themes related to the effect of a new child on the family unit as compared to women from other ethnic groups (Tamis-Lemonda and Kahana-Kalman 2009). Familism values are also related to *marianismo,* a construct that sets forth gender-specific role expectations regarding the centrality of motherhood and childcare in the lives of Hispanic women (Castillo et al., 2010). Mexican American women often incorporate the maternal role into their self-identity, finding value and meaning in being a mother. Culturally specific constructs related to mothering (e.g., motherhood as a valued and rewarding life experience) have been associated with positive pregnancy and birth experiences among Mexican American women (Page 2004). The content of Mexican American women's prenatal expectations and their relation to cultural values may vary with level of acculturation. The transition to parenthood may be influenced by acculturation as majority culture values of individualism, self-development and personal goals, and egalitarian gender role attitudes are increasingly adopted (Wilson 1998).

Cultural beliefs related to parenthood and childrearing offer a unique framework by which Mexican American women prepare to assume the maternal role, requiring adaptation of existing measures of prenatal expectations that were developed for majority populations. The current paper describes the development and validation of the Prenatal Experiences Scale for Mexican Americans (PESMA), a culturally-sensitive assessment of prenatal expectations for low-income Mexican American women. Taking prior empirical research and cultural considerations into account, The Prenatal Maternal Expectations Scale (Coleman et al., 1999) was extensively modified to evaluate prenatal expectations for life following the birth of a child in low-income Mexican American women. Exploratory factor analyses examined the structure underlying prenatal expectations. Additional analyses evaluated relations among expectations and concurrent measures of social support, depression, cultural constructs (e.g., familism and acculturation), and other sociodemographic factors to further characterize the nature of prenatal expectations among low-income Mexican American women and provide concurrent validation for the PESMA.

Materials and Methods

Participants

Participants included 210 self-identified Mexican American women (*M* age = 27.4 years, *SD* = 6.4) recruited for a larger longitudinal study of maternal and infant health that followed women and their infants for 3 years following the birth. Data collected during the prenatal assessment only were used for the current study. Women were invited to participate if the following eligibility criteria were met: (1) Self-identification as Mexican American,

(2) English or Spanish language fluency, (3) Age 18 or older, (4) Low-income status (self-reported income below $25,000 or eligibility for federal emergency medical services funding), and (5) Anticipated delivery of a healthy, singlet baby. Demographic characteristics of the sample are shown in Table 1.

Procedures

Women were recruited from a hospital-based clinic that provides prenatal care to low-income women in the surrounding urban community. During prenatal care appointments, pregnant women prior to 38 weeks gestation were introduced to the study by a female, bilingual interviewer. A total of 343 women were approached for recruitment during a prenatal care appointment. Of these, 286 (83%) agreed to be contacted to schedule a prenatal home visit, at which informed consent was obtained. Of the women who agreed to schedule a home visit, 36 (13%) could not be contacted to schedule the visit, 17 (6%) refused to participate, and 23 (8%) were ineligible (were not Mexican American, delivered prior to completing a prenatal home visit, had a miscarriage, or moved out of state). Our final sample consisted of 210 women who consented to be part of the study.

Prenatal home visits took place between 23 and 41 weeks gestation ($M = 35.2$, $SD = 2.9$). Interviews were conducted in the language with which participants were most comfortable (82% Spanish, 18% English). Due to variations in literacy, informed consent and all study questions were read aloud to women and responses were entered by the interviewer into a laptop computer. Women were compensated $75 for the interview and received small gifts in preparation for their baby's birth (e.g., bath oils, lip balm, and lotion).

Measures

Validated Spanish versions of the measures were used when available. For measures without a validated Spanish version, measures were translated and back translated by certified Spanish-English translators. The translations were then checked for accuracy by a separate team of bilingual study personnel to ensure they were culturally sensitive and appropriate to the local population of Spanish speakers. Any discrepancies were resolved by principal investigators or the lead translators.

Demographic characteristics—Women were queried about marital status, number of biological children, total number of children under 18 years of age residing in the home, educational history, age, and country of birth. Because the majority of the women were born in Mexico (86%), women were also asked how long they had lived in the United States.

Economic Hardship—Perceived financial difficulties were assessed with the Economic Hardship Scale (EHS; Barerra et al., 2001). The EHS was developed for low-income families and measures psychological aspects of poverty, including overall financial strain, lack of money for necessities, need for economic adjustments or cutbacks, and inability to make ends meet. Assessing the subjective nature of financial difficulties, rather than categorical total income, provides more information regarding need and deprivation in impoverished families (Barerra et al., 2001). Participants considered their financial situation for a 3 month time frame and answered 20 questions using a Likert scale ranging from 1–5, with lower scores indicating higher levels of financial strain. Scores from the four subscales were standardized and combined to form a single score of economic hardship ($\alpha = .74$)

Prenatal depressive symptoms—Depressive symptoms were measured with the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987). The EPDS has demonstrated moderate to good test-retest reliability, adequate internal consistency and

concurrent validity (Boyd et al., 2005), and has been validated in Spanish-speaking samples (Garcia-Esteve et al., 2003). Cronbach's alpha for the current sample was .86.

Prior experiences with a baby—Women were asked to describe their level of prior experience in child caretaking on a five-point scale (1 = Little/no experience, 2 = Some experience, 3 = A moderate amount of experience, 4 = Quite a bit of experience, 5 = A lot of experience).

Preparedness for a baby—Participants were asked how prepared they felt to care for a baby on a five-point scale (1 = Not prepared, 2 = Somewhat prepared, 3 = Moderately prepared, 4 = Quite a bit prepared, 5 = Very prepared).

Weeks pregnant at first prenatal care visit—Women reported how far along they were in their pregnancy when they first saw a physician to begin prenatal care.

Pregnancy intention—The intendedness of the current pregnancy was assessed by asking women if they wished to be pregnant: sooner/at the current time or at a later time/never.

Familism—Familism values were evaluated with 16 items from the Mexican American Cultural Values Scale (MACVS; Knight et al., 2007). Three subscales assessed beliefs about the family unit as related to familial obligations (e.g., "*Parents should be willing to make great sacrifices to make sure their children have a better life*"; 5 items, α = .59), family support and emotional closeness (e.g., *It is important for family members to show their love and affection for one another*"; 6 items, α = .77), and the use of the family as a source of reference (e.g., *"When it comes to important decisions, the family should ask for advice from close relatives"*; 5 items, α = .68). Participants indicated how much they agreed or disagreed with each item on a scale from 1 (strongly disagree) to 5 strongly agree). Correlations among the subscales ranged from r =.60 to .69 and were subsequently combined to form a single variable representative of overall endorsement of familism values (α = .86).

Acculturation—The Acculturation Rating Scale for Mexican Americans (ARSMA-II; Cuellar et al., 1995) evaluated women's level of acculturation. The 30-item scale is a widely-used measure of acculturation that assesses adaptation to majority culture (13-item Anglo Orientation Scale; α = .93) and ethnic culture (17-item Mexican Orientation Scale; α = .87) to provide a multidimensional assessment of acculturation.

Social support—Level of current social support was assessed with 17 items from the Medical Outcome Study Social Support Survey (Sherbourne and Stewart 1991). Participants were asked to indicate the frequency with which they had someone they could rely on for emotional/informational support (e.g., someone to confide in, someone who will give you good advice), tangible support (e.g., someone to take you to the doctor), affectionate support (e.g., someone who shows you love), and positive social interactions (e.g., someone to get together with for relaxation). Items were rated on a 5-point scale from 1 (never) to 5 (all the time) with higher scores indicative of greater availability of social support. Items were summed across dimensions to provide an overall index of the perceived availability of support (α = .96).

Satisfaction with paternal support—Level of satisfaction from the baby's father was evaluated with a single item, *"Overall, how satisfied are you with the support that you get from your baby's biological father?"* rated on a 5-point scale ranging from 1 (not at all satisfied) to 5 (extremely satisfied).

Prenatal maternal expectations—Development of the Prenatal Expectations Scale for Mexican Americans (PESMA), a culturally-sensitive measure of prenatal maternal expectations, was guided by prior research on maternal expectations and research on cultural characteristics of Mexican American families. Twelve items were selected from the Prenatal Maternal Expectations Scale (PMES; Coleman et al., 1999), a measure that assessed beliefs and expectations about motherhood among a sample of middle-class, predominantly Caucasian women. The PMES scale was chosen as the basis for development of the PESMA because it was the only known prospective measure that assessed prenatal maternal expectations over a broad range of domains and had been validated in prior samples (e.g. Baor and Soskolne 2010). Prior research has predominantly relied on qualitative studies or retrospective measures of prenatal expectations, or has focused on a specific domain of expectations (e.g., marital adjustment, division of household labor). The original PMES measure contained 46 items organized *a priori* into five subscales, including expectations about the baby's appearance and well-being, enjoyment of motherhood, influence on friendships and other relationships, impact on the mother's personal life, and expectations related to how a women envisions herself as a mother. Items retained from the original PMES measure were those that were considered aligned with culturally-relevant motherhood themes (e.g. family support and centrality of the maternal role). Items reflecting the loss of extracurricular activities and hobbies following childbirth were omitted. Minor changes were made from the original wording to accommodate the low literacy level of the current sample. Based on theory and prior empirical research, items were added to capture culturally-specific expectancies about life following the birth of a child. Such items assessed expectations of family support following childbirth (e.g., *"Your mother or other women in your family will teach you how to care for your baby*) and anticipated beliefs related to the centrality of *marianismo* to women's identities (e.g., *"Becoming a mother will be one of the best things you've ever done"*). The final measure contained 34 items rated on a 5-point scale from 1 = "Not at all" to 5 = "Completely", with higher scores reflecting higher expectations for the postpartum period in each domain.

Data Analyses

Because previous studies have not examined the psychometric properties of prenatal expectations in Mexican American mothers, an exploratory factor analysis (EFA) was completed to examine the underlying factor structure in this population. The EFA was conducted in MPlus 6.2 (Muthen & Muthen) using maximum likelihood factor analysis and geomin rotation (a type of oblique rotation) to allow for correlations among the factors, obtain fit statistics for the EFA model, and account for the small amount (2%) of missing data. Current statistical recommendations have criticized using eigenvalues greater than 1 as the sole determinant of the number of factors to be extracted (Fabrigar et al., 1999). More recently, employing model fit statistics, specifically RMSEA values .08, has been suggested as appropriate criteria to determine the number of total factors (Fabrigar et al., 1999). For the current analyses, fit indices (RMSEA .08, CFI .95, and SRMR < .08 values; Hu and Bentler 1999) and critical evaluation of the substantive content of the items that loaded on each factor were used to determine the final factor solution.

Results

Preliminary Analyses

Initial analyses revealed three types of problematic item-level issues. First, the twelve items that were reverse coded (e.g. *"there will be times that you feel stuck or trapped being a mother"*) tended to have low loadings on all of the factors, regardless of the number of factors extracted. Measurement literature suggests that reverse coded items may place a substantial cognitive burden on participants (Weems et al., 2003) and may be especially

problematic when translated into Spanish (Knight et al., 2010); thus, these items may have been problematic for our sample given lower literacy levels. Second, two items assessing maternal expectations of infant appearance and health had very low variability (e.g., *"My baby will be beautiful" M* = 4.92 *SD* =.4 and "*My baby will be healthy" M* = 4.63 *SD* =.7), as almost all mothers answered "5, Very much so". A third group of three items had low loadings (ranging from .13–.20) or did not substantively fit within any factor solution (e.g. "*You will have enough money to provide for your baby").* Thus, 17 items were eliminated, leaving a total of 17 items.

Primary Analyses

Exploratory Factor Analyses—Two, three, and four factor models with the 17-item PESMA items were examined using the data analytic procedures described above. The EFA with the 17 items indicated that a three-factor solution provided a good fit to the data (CFI = .95, RMSEA = .08, SRMR = .03). The two-factor solution provided a worse fit to the data according to the aforementioned fit indices (CFI = .87, RMSEA = .11, SRMR = .08), and was disregarded as a viable solution. Mathematically, the four-factor solution presented as a somewhat better fit to the data (CFI = .97, RMSEA = .06, SRMR = .03), however, the substantive content of the fourth factor was not theoretically cohesive. Furthermore, the content of the three-factor solution deteriorated as items loaded onto the fourth factor. Therefore, the three-factor solution was selected for the subsequent analyses and interpretations.

Within the three-factor solution, the first factor (termed *Paternal Support)* consisted of six items assessing expectations of partner support, with loadings ranging from .65 to .92 (see Table 2). Factor 2 (termed *Family Support)* consisted of six items pertaining to anticipated family support during the postpartum period and had factor loadings ranging from .48 to .72. Lastly, the third factor (termed *Maternal Role Fulfillment*) was comprised of five items that assessed expectations about the transition to the maternal role and satisfaction anticipated from motherhood (factor loadings ranged from .48 to .72). The *Paternal Support* factor correlated with *Family Support* factor (*r* =.22), and with *Maternal Role Fulfillment* factor (*r* = .34). The correlation between *Family Support* and *Maternal Role Fulfillment* factors was *r* = .26. Scale scores were formed by summing the individual items identified by each factor in the EFA. The *Paternal Support*, *Family Support*, and *Maternal Role Fulfillment* subscales had internal reliabilities of Cronbach's alpha = .91, .85, and .69, respectively. Cronbach's alpha for the entire PESMA scale was .86.

Correlates of prenatal expectations—Following the EFA, Pearson product correlation analyses were conducted to describe the demographic and cultural correlates of paternal support, family support, and maternal role fulfillment expectations. Correlations between prenatal expectations and measures of prenatal psychosocial functioning were also calculated to explore the concurrent validity of the newly developed measure. Results are shown in Table 3 and described in more detail below.

Demographic characteristics: Expectations of paternal support and maternal role fulfillment were higher among women married to and/or living with a romantic partner and those who wanted to be pregnant at that time or sooner. Women with expectations for more satisfaction from the maternal role lived in homes with fewer children, reported higher levels of economic hardship, had more prior experience with babies, and endorsed a greater sense of preparedness for motherhood. Interestingly, Mexican American mothers who expected to feel greater fulfillment from motherhood reported earlier initiation of prenatal care. Higher expectations of family support were associated with younger maternal age, fewer biological children, increased economic hardship, and higher maternal education.

Psychosocial characteristics: All three factors of the PESMA were negatively correlated with prenatal depressive symptoms (correlations ranged between −.18 and −.41) and positively correlated with prenatal social support ($r = .26$ to .52). The magnitude of these correlations is consistent with Cohen's (1988) definition of effect sizes ranging from small to medium for depressive symptoms and medium to large for social support. In sum, higher levels of expectations for Paternal Support, Family Support, and Maternal Role Fulfillment were significantly associated with fewer prenatal depressive symptoms and higher social support.

Cultural characteristics: We also examined correlations among the three domains of the PESMA and cultural characteristics, including country of origin, age of immigration to the United States, and orientation to majority/minority culture. Women who were born in the United States had higher expectations of family support compared to women born in Mexico. However, women born in Mexico had significantly higher expectations for paternal support than those born in the United States. Similarly, women who immigrated to the United States at a younger age endorsed significantly higher levels of expected family support compared to women who immigrated to the United States at an older age. Age of immigration and country of origin were not significantly correlated with partner support or maternal role fulfillment expectations. Higher expectations across all three domains were positively associated with greater endorsement of familism values, with correlations ranging from .19 to .38, which is consistent a small to medium effect size (Cohen 1988). Women who anticipated greater family support after the birth of their baby also endorsed a cultural orientation characterized by higher identification with Anglo culture and lower identification with Mexican culture. However, greater identification with Mexican culture was associated with higher expectations for the maternal role and paternal support.

Validity testing: Correlational analyses also served the purpose of providing discriminant and concurrent validity for the PESMA. First, we explored relations between each subscale of expectations and constructs with which they should be positively correlated. For example, we would expect anticipated partner support and family support to be positively related to measures of current general social support. In fact, social support was positively correlated with prenatal expectations of partner support ($r = .35$) and family support ($r = .52$). The respective moderate and large magnitude of these relations demonstrated that each subscale of the PESMA is related to general social support, but is also distinct and contains unique information. As we would expect, women who were married or in a relationship ($r = −.62$) and those who were more satisfied with the current levels of support from their baby's father ($r = .80$) demonstrated higher expectations for greater paternal support. Prenatal expectations were also positively correlated with familism (r's = .19 to .38), a construct emphasizing strong familial bonds and the importance of family cohesion. The magnitude of the correlations between expectations and familism was lower than the correlations observed between expectations and general social support, which may be expected given the stronger conceptual link between expectations of social support and current general social support.

Next, we explored associations with constructs we would expect to bear a negative relation with prenatal expectations. Feelings of hopelessness are a hallmark feature of depressive disorders and as such, we would expect women reporting higher levels of depressive symptoms to endorse lower positive expectations for the future. As expected, prenatal depressive symptoms were negatively correlated with each of the three expectations subscales ($r = −.18$ to −.41). Women who had lower expectations for maternal role fulfillment initiated prenatal care later in their pregnancies ($r = −.18$). Women may be less likely to engage in positive health behaviors during pregnancy when they hold negative expectations for the maternal role. Further, prenatal care initiation was not significantly associated with expectations for paternal or family support. The absence of significant

relations among prenatal care and partner and family support may be expected, as maternal role expectations should bear a stronger correlation with maternal self-care and health.

Discussion

The current literature on prenatal expectations has focused primarily on middle-class, Caucasian samples, resulting in a gap in our understanding and measurement of prenatal expectations in high-risk, low-income minority samples. The current study adapted an existing measure of prenatal expectations for use with low income Mexican American women, who have the highest birthrate in the United States (Hamilton et al., 2011). The Prenatal Maternal Expectations Scale (Coleman et al., 1999) formed the initial basis for the measure, but was extensively modified to reflect culturally-relevant domains of expectations and form the Prenatal Expectations Scale for Mexican Americans (PESMA). Three distinct factors emerged underlying prenatal expectations in this sample of low-income Mexican American women: *Paternal Support, Family Support*, and *Maternal Role Fulfillment*. The correlations among the factors were modest, suggesting that each is an important individual domain that characterizes the content of women's prenatal expectations. This underlying structure of prenatal expectations also demonstrated good concurrent validity when compared to measures of social support and prenatal depression.

The current investigation offers a novel description of antepartum Mexican American women's perceptions of what motherhood will entail. Women cognitively and emotionally prepare for motherhood during the prenatal period by evaluating, appraising, and forming expectations about qualities of the postpartum environment (Lawrence et al., 2007). Prenatal expectations also represent beliefs about distinct sources of stress and fulfillment women may experience when they become a mother (Lederman 1996) and have been postulated to affect a woman's behavior and mood during the prenatal period (Lucas 2010). An understanding of relations among prenatal expectations, emotional functioning, and healthy pregnancy behaviors may suggest important targets for interventions to promote maternal and infant health during the prenatal period. Among Mexican American women for whom elevated rates of prenatal depression have been observed (Lara et al., 2009), such efforts may be particularly critical.

Little is known about the individual, familial, and cultural characteristics associated with expectations formed about this transformative life experience. Examining these personal and contextual qualities are critical to understanding the characteristics of women who form higher and lower levels of prenatal expectations. In the present study, women who had higher expectations for maternal role fulfillment were more likely to be married and have fewer young children living in the home. Women may expect that adjusting to their role as mothers will be more enjoyable or fulfilling if they do so with a partner, rather than alone. Women with higher expectations of postpartum family support were more likely to have higher levels of education, less subjective economic hardship, and be younger in age. Younger women may be more likely to live at home and expect the support of their nuclear and extended family following the birth of their baby. High existing levels of personal and socioeconomic resources in the prenatal environment may also contribute to expectations for support during the postpartum period. These findings extend our understanding of prenatal expectations in a sample focused exclusively on low-income Mexican American women.

Prior research has observed lower levels of prenatal and postpartum depression among Mexican American women who report higher prenatal social support (Campos et al., 2008; Martinez-Schallmoser et al., 2003; Sheng et al., 2010); however, these studies focused on received support rather than expectations of future support. Measuring expectations differs from assessing currently available resources because expectations capture an element of

cognitive appraisal, including how a woman *perceives* or *feels* about the resources in her life and their future availability. The emotional correlates of these appraisals of the postpartum period are likely associated with women's stress levels and mood during pregnancy (Lucas 2010). In the current study, women with higher expectations for postpartum partner and family support had fewer prenatal depressive symptoms. Although correlational in nature, these findings may provide insight into the positive or protective effects that cognitive appraisal or rehearsal of postpartum expectations may have during the prenatal period. As a function of self-fulfilling prophecies or pressures to ensure confirmation of anticipated future events, prenatal expectations for support may shape the type and extent of support received *following* the birth of a child (Hackle and Ruble 1992; Lawrence et al., 2007). As low levels of postpartum social support have been identified as a risk factor in the development of postpartum depression among Hispanic women (Martinez-Schallmoser et al., 2003), assessing prenatal expectations of postpartum support may offer an early identification strategy for women at risk for poor adjustment in the postpartum period.

Prenatal depressive symptoms were also lower among women who endorsed higher expectations for the maternal role. Changes in a woman's self-concept are a significant part of pregnancy (Smith 1999) and prior research suggests positive cognitive rehearsal of becoming a mother contributes to psychological well-being during pregnancy (Lederman 1996; Rubin 1984). It is also possible that depressive symptoms contribute to more negative expectations about the upcoming maternal role. Women's prior experience with babies and feelings of preparedness to care for an infant were significantly associated with expectations for a more rewarding experience in the maternal role. Educating women about how to care for a new baby ameliorates the stress infant care often brings in the early postpartum period (Darvil et al., 2010; Shaw et al., 2006). The current findings raise the possibility that such education may also contribute to more positive expectations that one will be able to manage and be fulfilled by the maternal role. Importantly, women who had higher expectations that motherhood would be a fulfilling experience reported earlier initiation of prenatal care. Models of prenatal care utilization in low-income populations have not been heavily investigated, and these results suggest bolstering the prenatal expectations for maternal role may be a promising pathway to explore.

Among Mexican American women, prevailing values offer a cultural lens to interpret and understand beliefs surrounding the transition to the maternal role. We examined multiple elements of acculturation and Mexican American cultural values to broadly assess relations between cultural factors and prenatal expectations. Familism highlights the value of the maternal role (Castillo et al., 2010) and importance of close familial bonds (Marin 1993) such that women with these beliefs may approach the transition to parenthood with more positive expectations. Indeed, women with more positive expectations across all three factors of prenatal expectations reported stronger endorsement of familism values and those who more strongly identified with Mexican culture anticipated greater fulfillment from the maternal role. Analyses also revealed a negative relation between Mexican cultural orientation and expectations of family support, and a positive relation between Anglo cultural orientation and expectations of family support in the postpartum period. Although this finding might appear counterintuitive given expectations that traditional women would be more family-oriented, prior research has shown that expectations of family support do not diminish with increasing acculturation and, as a result, later generations and more acculturated individuals may benefit from more family support simply because they have more family members residing in the United States (Sabogal et al., 1987). Identification with Anglo culture was also associated with earlier age of immigration to the United States or birth in the United States, supporting the interpretation that the more acculturated women in the sample may have a stronger and more stable network of family members available.

There are several limitations in the current study. First, the small number of items may have limited the identification of other important domains of women's expectations about the postpartum period. Though empirical and theoretical support was used to adapt the PESMA for use with Mexican American women from an existing measure of prenatal expectations, qualitative studies and focus groups may identify additional items or factors. Second, the formation of expectations may be related to other factors not assessed in the current study, including personality factors, attachment style, or lifetime history of depression or other mental health issues. Third, because steps were taken to ensure the applicability of the domains and content of the PESMA to Mexican American women, it may not be generalizable to other Latino populations. Fourth, the reliability of the *Maternal Role Fulfillment* subscale appeared to be affected by the presence of reverse coded and low variability items. While item elimination during exploratory analyses and measure development is expected, future studies refining the items for this subscale may be particularly important. Fifth, the single-item measure of satisfaction with current paternal support may have provided only limited information about relations between expectations and support related to the father role. Future studies should examine relations between expectations and different domains of paternal support. Finally, the PESMA requires further testing of its psychometric properties with a larger sample size to enhance the support for its use with Mexican American women. Evidence of construct validity and test-retest reliability may be achieved through additional administrations and confirmatory factor analyses of the proposed factor structure.

Conclusion

Investigations of prenatal expectations in Mexican American women are scarce. The few studies that have examined this construct have done so through qualitative interviews (Guendleman et al., 2001; Lucas 2010; Tamis-Lemonda and Kahana-Kalman 2009). The current study provides a significant contribution to the current literature by developing and validating the PESMA, a measure of prenatal expectations in low-income Mexican American women. A culturally-relevant assessment of expectations for the postpartum period offers important insight into how Mexican American women anticipate the positive and negative changes that accompany new motherhood. The three domains of expectations assessed by the PESMA (*Family Support*, *Partner Support*, and *Maternal Role Fulfillment*) represent a broad prenatal snapshot of women's anticipated experiences during the postpartum period and demonstrate informative relations with concurrent demographic, psychosocial, and cultural factors. Culturally-sensitive measurement of prenatal expectations is an important step towards a better understanding of the transition to motherhood among unique population of women.

Acknowledgments

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Table 1

Demographic characteristics

	N (%)	Range Observed	*Mean*	*SD*
Marital Status				
Married and Living w/Partner	56 (26.7)			
Married but not Living w/Partner	5 (2.4)			
Not Married but Living w/Partner	103 (49)			
Never Married and Not Living w/Partner	31 (14.8)			
Separated/Divorced	15 (7.1)			
Number of children under 18 in the home		0–11	1.8	1.9
Number of biological children		0–9	2.06	1.8
Preparedness for infant care		2–5	4.0	0.9
Prior experience with babies		1–5	4.0	1.1
Education				
Did not attend school	2 (1)			
1 through 8 years of school	59 (28.1)			
Some high school completed	64 (30.5)			
High school graduate/GED	61 (29)			
Some college, vocational or technical school	8 (3.8)			
Associates/Vocational/Technical School	4 (1.9)			
College degree (BS/BA) or Above	12 (5.7)			
Economic hardship		−5.98–7.89	−0.03	2.99
Number of gestational weeks when prenatal care was initiated		1–32	10.1	6.3
Pregnancy Intentions				
Wanted to get pregnant later or never	109 (51.9)			
Wanted to be pregnant then or sooner	101 (48.1)			
Age		18–42	27.4	6.4
Country of birth				
U.S.	30 (14.3)			
Mexico	180 (85.7)			
Age of immigration to the U.S.		0–34	16.3	7.6
Depressive Symptoms		0–25	5.4	5.4
Familism		21–80	72.4	7.4
Anglo Orientation		1.2–4.8	2.5	1.0

	N (%)	Range Observed	*Mean*	*SD*
Mexican Orientation		2.2–5	4.3	0.6
Social Support		4–68	52.7	15.2
PESMA Partner Support		6–30	23.7	7.1
PESMA Family Support		6–30	19.3	6.4
PESMA Maternal Role Fulfillment		15–25	23.8	2.1

Table 2

Prenatal maternal expectations measure items and EFA factor loadings[*]

Item	Paternal support factor	Family support factor	Maternal role fulfillment factor
1. Your spouse/partner will be there for you when you need him *(SO) estará a su lado cuando lo necesite*	**.89**	−.01	.04
2. Your life will feel more complete when you become a mother *Su vida será más plena cuando se convierta en madre*	.03	−.03	**.59**
3. After your baby is born, family members will stay with you and help take care of your baby *Después que nazca su bebé, sus familiares se quedarán con usted y la ayudarán a cuidar a su bebé*	.02	**.85**	−.03
4. Becoming a mother will be one of the best things you've ever done *Convertirse en madre será una de las mejores cosas que haya hecho.*	.15	.11	**.57**
5. After your baby is born, family members will help take care of things, like cooking and cleaning, so you can stay focused on your baby *Después que nazca su bebé, sus familiares la ayudarán con como cocinar o limpiar, para que usted pueda dedicarle el mayor tiempo posible a su bebé*	.09	**.80**	.02
6. Your mother or other women in your family will teach you how to care for your baby *Su mamá u otras mujeres de su familia le enseñarán cómo cuidar a su bebé*	−.12	**.63**	.01
7. Your baby's father will help you financially with the baby *El papá del bebé le ayudará económicamente con el bebé*	**.87**	−.12	−.05
8. Being a good mother will come naturally to you *Ser una buena madre será algo natural para usted*	.12	.01	**.48**
9. After your baby is born, your partner/spouse will do more chores to help around the house *Después que nazca su bebé, (SO) hará más quehaceres para ayudar en la casa*	**.87**	.002	.03
10. After your baby is born, you will have many visitors *Después que nazca su bebé, tendrá muchas visitas*	−.02	**.45**	−.02
11. (SO) will love you more when your baby is born *(SO) la querrá más después que nazca su bebé*	**.73**	.15	−.01
12. You will have strong feelings of love for your baby as soon as he or she is born *Usted tendrá fuertes sentimientos de amor hacia su bebé en cuanto nazca*	−.06	−.10	**.64**
13. After your baby is born, you will receive special help from family/friends *Después que nazca su bebé, usted recibirá ayuda especial de su familia/amigos*	−.07	**.76**	.08
14. (SO) will respect you more when you become a mother *(SO) la respetará más cuando usted sea madre*	**.65**	.23	.03
15. You will be happy just holding and playing with your baby *Usted será feliz con sólo abrazar y jugar con su bebé*	−.01	.01	**.72**
16. (SO) will help take care of your baby *(SO) la ayudará a cuidar a su bebé*	**.92**	.02	.01
17. After your baby is born, your family will help you stay relaxed and avoid things that are stressful *Después que nazca su bebé, su familia la ayudará a mantenerse relajada y evitar cosas que sean estresantes*	.23	**.68**	−.02

(SO) = significant other

[*] Only items retained through the final three-factor EFA solution are included

Table 3

Correlations between prenatal expectation factors, demographics, psychosocial measures, and cultural variables (N= 210)

	Paternal support factor	Family support factor	Maternal role fulfillment factor
Marital status[a]	−.62**	−.02	−.17*
No. of children under 18 in the home	−.14	−.13	−.24**
No. of other biological children	.02	−.25**	.04
Preparedness for infant care	.07	.03	.21**
Experience with infants	.01	−.06	.16*
Economic hardship	−.11	−.32**	−.14*
Maternal education	−.03	.24*	.04
Gestational weeks when prenatal care was initiated	−.05	−.04	−.18**
Pregnancy intentions[b]	.19**	−.01	.13
Maternal age	.05	−.33**	.10
Country of birth[c]	.14*	−.24**	−.01
Immigration age to US	.08	−.26**	.07
Satisfaction with support from biological father	.80**	.26**	.22**
Depressive symptoms	−.41**	−.18**	−.22**
General social support	.35**	.52**	.26**
Familism	.19**	.20**	.38**
Anglo orientation	−.04	.38**	.05
Mexican orientation	.15*	−.19**	.16*

[a]
0 = Married or living together, 1 = Not living with partner;

[b]
0 = Wanted to be pregnant later or never, 1 = wanted to be pregnant then or sooner;

[c]
0 = Born in United States, 1 = Born in Mexico

*
p .05,

**
p .01