Spiritual, Religious, and Psychosocial Factors, & Birth Outcomes Among Latina Mothers

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Introduction

❖ Prevalence of low birth weight (LBW) infants is highest among Black women (11.8%) compared to the white (7.1%), Hispanic (5.3%), & Asian/Pacific Islander (8.4%) women. (CDC, 2009)

❖ *Healthy People 2010* goals & initiatives:

  ❖ Eliminate health disparities among different segments of the population

  ❖ Reduction of low birth weight (LBW) and preterm births

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Latina Paradox

❖ In spite of their general social disadvantage, Mexican-born immigrants (and other Latinas) have:

  ❖ better birth outcomes than African Americans who have comparable social and economic status and

  ❖ birth outcomes that are comparable to non-Hispanic whites.

❖ "Latin paradox" or "epidemiologic paradox"

Background

❖ Low socioeconomic status has been associated with low birth weight (LBW) and higher infant mortality rate.

❖ Prenatal care has been associated with better birth outcomes

❖ However, Mexican Americans are less likely to seek prenatal care and may wait until the last trimester, but still have birth weights comparable to non-Hispanic whites.

Latina Paradox: Explanations

❖Several theories exist to help explain this phenomenon, subsumed under the term, "social capital"

❖Protective factors include:

   ❖Selective migration, strong familism & supportive community network

   ❖Strong cultural support for maternity, healthy traditional dietary practices, and the norm of selfless devotion to the maternal role (*marianismo).*

   ❖Religious/spiritual beliefs and practices

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Role of Spirituality/Religion

❖Religion plays a central role in influencing maternal health behaviors and attitudes.

❖Prayer was noted as a useful tool to:

❖maintain emotional balance in times of stress

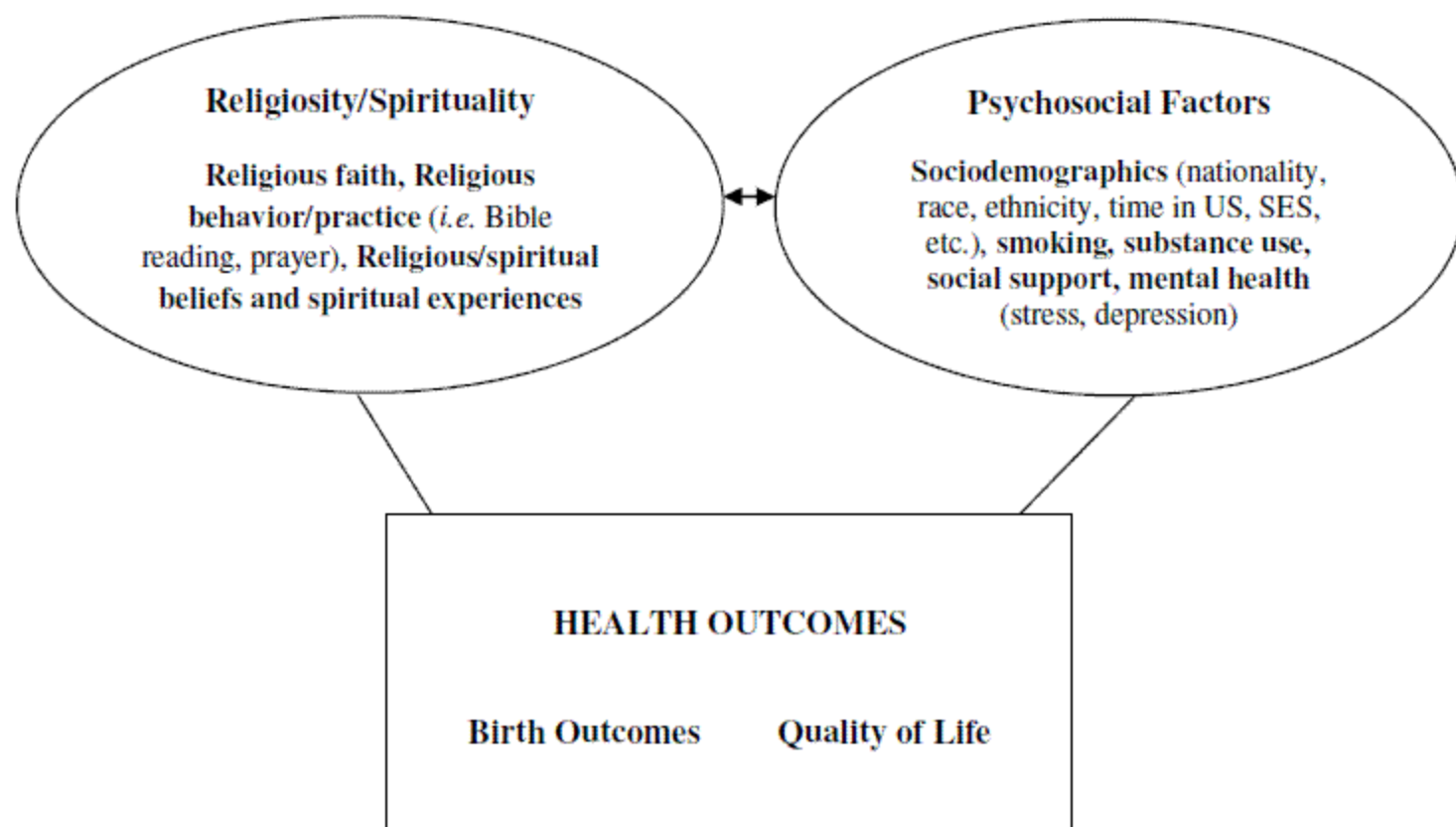❖helped create an empowered view of self within the context of a spiritual life.

Mujerista Theology

❖ "Mujerista Theology" and Hispanic/ Latino Theology (Diaz, 1996; Diaz & Segovia, 1996) guided this research.

  ❖ Deep spirituality of Latina women who have a special understanding of "la palabra de Dios" (the word of God), and use the Bible to enable/enhance their moral agency and to help build community.

  ❖ Hebrews 4:12: "La palabra de Dios tiene fuerzas y da vida" (God's word has strength and gives life), indicating that God is with them in their daily struggle.

  ❖ According to Diaz (1996), this spirituality out of which Latina women act and live is anchored in notions of love, and "being with others."

Figure 1. Combined Conceptual Framework

Religiosity/Spirituality

Religious faith, Religious behavior/practice (*i.e.* Bible reading, prayer), Religious/spiritual beliefs and spiritual experiences

Psychosocial Factors

Sociodemographics (nationality, race, ethnicity, time in US, SES, etc.), **smoking, substance use, social support, mental health** (stress, depression)

HEALTH OUTCOMES

Birth Outcomes   Quality of Life

Design and Methods

- **Design:** Descriptive, correlational, community-based longitudinal study among Pregnant Latinas

- **Methods:** Mixed (qualitative and quantitative)
  - Open-ended qualitative questions & reliable Spanish-version questionnaires

- **Recruitment:**
  - From 6 prenatal care clinics in metro-Atlanta
  - brochures & referral, voluntary

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Screening & Eligibility

❖ Women interested in the study are screened in person or via telephone by the project staff, using a brief screening questionnaire. To be eligible women must:

❖ 1) self-identify as Latina

❖ 2) be at least 28 weeks pregnant;

❖ 3) be 18 years or older

❖ 4) be willing to participate in the study and complete baseline questionnaires and follow-up questions.

❖ Informed consent obtained from each woman

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Data Collection

❖ Qualitative questions & Spanish-version questionnaires

❖ Questionnaire Development System (QDS) and administered by project staff using Computerized Personal Interviews (CAPI) on laptop computers.

❖ Interviews lasted 45-75 minutes and data is collected at 2 time points: 1) baseline & 2) 1-12 weeks after delivery

❖ Women were asked about pregnancy history, gestational age at first prenatal visit, pregnancy-relevant health behaviors, mental health and depressive symptoms, quality of life, and about their spiritual and non-spiritual views regarding motherhood.

Study Instruments/Measures

Baseline Interview:

- **Demographic questionnaire: age, race, education, income level, marital status, living arrangements, country of origin, and length of time in the United States, etc.**

- **Pregnancy History Questionnaire**

- **Pregnancy-Relevant Health Behaviors**

- **The Daily Spiritual Experiences Scale (15-item)**

- **The Santa Clara Strength of Religious Faith (SCSRF) questionnaire (10-item scale)**

- **The 3-item Religious Coping Index**

- **Modified Brief Multidimensional Measure of Religiousness/ Spirituality (BMMRS) (14 items)**

- **Center for Epidemiological Studies Depression Scale**

- **Perceived Stress Scale (PSS) (10-item scale)**

- **Global self-esteem scale (10-item)**

- **The Interpersonal Support Evaluation List (ISEL) scale (40 items)**

- **RAND-36-Item Health Survey 1.0 (36 items)**

Follow-Up Interview

❖ Follow-up (Delivery) Questionnaire

  ❖ Gestational weeks at delivery

  ❖ Sex of baby

  ❖ Infant birth weight (lbs)

  ❖ Method of delivery (vaginal *vs* Cesarean)

  ❖ Use of epidural anesthesia

  ❖ Information also confirmed with clinic record

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Data Analysis

- Data analyzed using the SPSS 17.0

- Two-sided Alphas used and set at a $p < .05$

- Descriptive statistics

- Pearson correlations

- Multiple linear regression

- Hierarchical regression

Study Hypotheses

- We hypothesized that there would be *inverse* relationships between:
  - H1) religious variables & depression
  - H2) religious variables & perceived stress
  - H3) depression & social support
  - H4) depression & IBW
  - H5) perceived stress & IBW

Study Hypotheses

- We hypothesized that there would be *positive* relationships between:

  - H6) religious variables & social support
  - H7) perceived stress & depression
  - H8) religious variables & IBW
  - H9) social support & IBW

RESULTS & FINDINGS

Sample Demographics

- **Sample size: 69**

- **Average age:** 27.3 years

- **Country of Origin:**
  - Majority from Mexico (71.4%)
  - Others from Brazil, Columbia, El Salvador, Guatemala, Peru, US, other

- **Average length of time in US:** 7.76 (4.4) years

- **Marital Status:**
  - Married 42.9%
  - Single/Living w/Partner 45.7%

Socioeconomic Factors

- **Education**
  - Less than High school45.7% (32)
  - High school= 28.6% (20)
- **Employment**
  - unemployed 78.6% (55)
- **Income**
  - Annual incomes < $20,000 (70.1%, n=49)

Spiritual/Religious Characteristics

- **Religious Denomination**
  - Majority Catholic   (68.6%)

- **Religious Attendance**
  - Weekly (39.1 %)
  - Monthly (35.7%)

- More than half of the sample said they were very or moderately
  - "spiritual" (72.5%, n=50)
  - "religious" (65.2%, n=45)

ASSOCIATIONS AND HEALTH OUTCOMES

Birth Outcomes

- No preterm (< 37 weeks gestation) or LBW (<2500 grams) infants

- **Average birth weight**
  - 3370.4 (348.1) grams
  - 7.0 (.87) pounds

- **Deliveries/Birthing Method**
  - Vaginal   77.0%   (47)
  - Cesarean   20.0%   (14)

CORRELATION MATRIX

Variables	10	11	12	13	14	15	16	17
1. Church Attendance (0= Never)	--	--	.34**	.31**	.28*	.29*	--	--
2. Prayer (0= Never)	--	--	.30*	.24*	.34**	.26*	--	--
3. Mediation (0= Never)	--	−.25*	--	--	--	.24*	--	--
4. Bible Reading (0= Never)	--	--	.32**	--	.24*	--	--	--
5. Religious TV/radio (0= Never)	--	--	--	--	--	--	−.32**	--
6. Religious Self-Rating (0=Not at all)	--	−.31**	--	.24*	--	--	--	--
7. Spiritual Self-Rating (0=Not at all)	--	−.26*	--	--	--	--	--	.31*
8. Daily Spiritual Experiences Scale	−.33**	−.30*	.37**	.35**	.24*	.29*	--	--
9. Religious Faith	--	−.24*	.32**	.27*	--	--	--	--
10. Perceived Stress	--	.78**	−.39**	−.40**	−.34**	−.33**	--	--
11. Depressive Symptoms		--	−.27*	−.44**	−.32**	−.28*	--	--
12. Self-Esteem Social Support			--	.82**	.75**	.78**	−.25*	--
13. Belonging Social Support				--	.88**	.89**	--	--
14. Tangible Social Support					--	.88**	--	--
15. Appraisal social support						--	--	--
16. IBW							--	--
17. GWD								--

Spirituality/Religiousness & Depression

- H1 was supported by significant *inverse* associations between depressive symptoms &:

  - frequency of meditation (r= −.25, p=.042),

  - self-rated religiousness (r= −.31; p=.009)

  - spirituality (r= −26; p=.030),

  - daily spiritual experiences (r= −.30; p=.013)

  - religious faith (r= −.24; p=.046).

Spirituality & Stress

- H2 supported by a significant inverse association between:
  - perceived stress and daily spiritual experiences ($r = -.33$; $p = .006$)

Depression & Social Support

- H3 supported by significant *inverse* correlations between depressive symptoms and all four social support subscales

  - Self-Esteem Social Support (r= −.27*)

  - Belonging Social Support (r= −.44**)

  - Tangible Social Support (r= −.32**)

  - Appraisal social support (r= −.28*)

IBW and Psychological Factors

- There was no significant association between depressive symptoms or perceived stress and IBW

- H4 and H5 not supported

Spirituality/Religiousness & Social Support

- **H6 supported. *≤.05; ** ≤ .01**

- **Positive associations** between ***church attendance* & all dimensions of social support** (church Attendance 0= Never)
  - Self-Esteem Social Support r=.34**
  - Belonging Social Support r=.31**
  - Tangible Social Support r=.28*
  - Appraisal social support r=.29*

- **Positive association** between ***prayer* & all social support dimensions**
  - Self-Esteem Social Support r= .30*
  - Belonging Social Support r= .24*
  - Tangible Social Support r= .34**
  - Appraisal social support r= .26*

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Spirituality/Religiousness & Social Support

- H6 also supported by significant *positive* associations between:
  - **meditation** & appraisal support subscale scores (r= .24*)
  - frequency of **Bible reading** & self-esteem social support (r= .32; p= .008) and tangible social support (r= .24*)
  - self-rated **religiousness** & belonging social support (r= .24*)
  - **DSES** and all social support subscale scores
  - **religious faith** & self-esteem social support (r= .32**) and belonging social support (r= .27*)

Spirituality/Religiousness & Birth Outcomes

- Self-rated spirituality and GWD (r= .31; p=.014)

- This significant positive association with GWD (Beta= .29, *p=.024) existed even after controlling for age and prenatal care (F= 3.08, p =.034).*

- Higher self-ratings of spirituality were associated with higher GWD (or deliveries that were closer to full term).

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Spirituality/Religiousness & Birth Outcomes

- Frequency of watching or listening to religious TV or radio was a significant predictor of IBW, beyond sociodemographics, PNC, smoking etc. F (12, 62) = 2.173, p=.028*

  - Watching/Listening religious TV/radio
    β=−.39; p= **.003**

Quality of Life Outcomes

- Significant associations between stress, depression and mental and physical QOL

  - *Physical HRQOL* and:
    - Depression (r=-.56) p=.0001 ;
    - Stress (r=-.39) p=.001

  - *Mental HRQOL* and:
    - Depression   (r=-.71) p=.0001;
    - Stress (r=-.61) p= .0001

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Summary & Conclusions

- Spirituality/religiosity is important among Latina mothers and associated with psychosocial factors and birth outcomes.

- Spiritual/religious variables were significantly positively associated with social support, IBW and GWD and inversely associated with perceived stress and depressive symptoms.

- IBW was significantly positively correlated with social functioning QOL and inversely associated with self-esteem social support.

- Spirituality significantly explained unique variance in IBW than covariates.

Implications

- This study identified spiritual, religious, and psychosocial factors associated with infant birth outcomes that could be used to help explain the Latina Paradox.

- Findings have implications for research, practice and community engagement

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Implications

- Findings can be used to:
    - conduct larger longitudinal studies
    - inform intervention development and testing
    - influence nursing, healthcare and obstetrical care
    - Promote interdisciplinary care and partnerships with healthcare providers, social workers, and chaplains, clergy and religious communities

Implications

- Overall, spiritual and psychosocial factors should be routinely assessed and included in obstetrical and prenatal care as well as in pregnancy-related outcomes research.

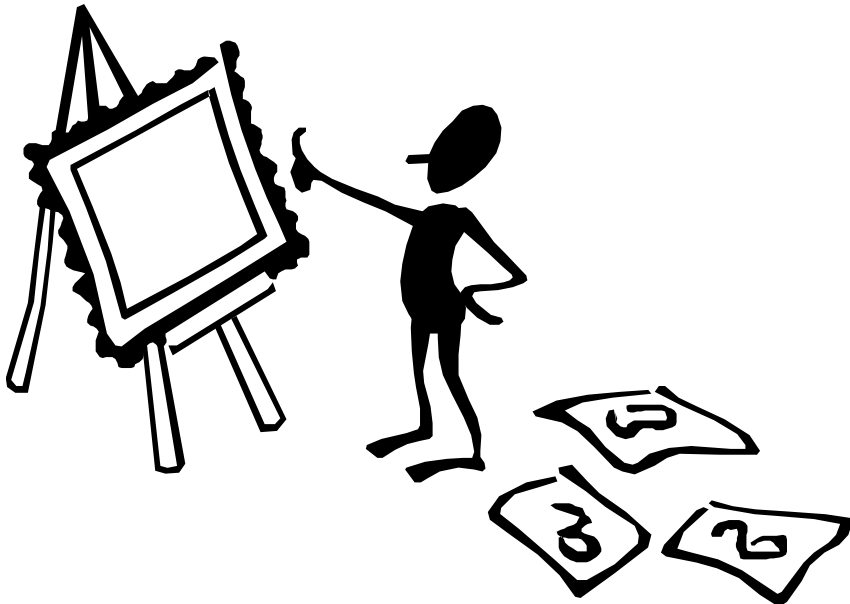Dalmida, S.G., Robertson, B., Carrion, M.M., Thompson, W.W., Erskine, N.L., Scruggs, N.J., Palomeque, F. & Sniderman, M. (2010). Spirituality, religiousness, psychosocial factors and maternal-infant outcomes in Latina mothers. *Southern Online Journal of Nursing Research,* 10(3), 1-19.

Thank You

QUESTIONS?

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