

Psychosocial Predictors of Healthy and Unhealthy Interpregnancy Intervals

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Background

- Short and long interpregnancy intervals (IPIs) have been shown to significantly increase the risk of adverse maternal & fetal outcomes, such as low birth weight, preterm delivery and preeclampsia.¹⁻³
- This association may be mediated by maternal nutrient and folate depletion and/or postpartum stress.⁴⁻⁵
- Factors such as being of ethnic minority, low education level, low socioeconomic status and late initiation of prenatal care have been identified as associated with short IPIs.^{1, 6-7}
- Few have examined how psychosocial factors might contribute to IPI length.

Objectives

- To examine the influence of psychosocial factors, including anxiety, depression, social support, maternal substance abuse and intimate partner violence (IPV) on IPI

About B'more for Healthy Babies

- A place-based, community-participatory initiative for low-income, inner-city pregnant and parenting women. Services include: (1) Needs assessment and care-coordination provided by a trained community health worker, (2) Pre and postnatal education curriculum taught via “mom’s clubs”, (3) City-wide healthy pregnancy messaging.
- Pregnant women are identified by community outreach and through referrals from community partners including health care providers, WIC, Head Start and schools.
- Interventions include referrals for medical and non-medical supportive services including transportation, referrals for food and shelter and supportive counseling.

Methods

- Information on psychosocial factors and birth intervals was collected at program entry, post delivery and three months post delivery.
- IPV, alcohol/ substance abuse, anxiety and depression were assessed using validated screening questions.⁸⁻¹⁰
- Using calculated IPI values, participants were placed into one of three IPI categories: short (<18 months), healthy (18 – 59 months), and long (>59 months)
- The proportion of women with psychosocial risk and protective factors were calculated. differences were assessed by chi-square test and ANOVA
- Multivariable multinomial logistic regression was used to assess effect of psychosocial factors on IPI.

Results

Demographic Characteristics (N=76)

Demographic	% or mean (SD)	Demographic	% or mean
Age (years)	26.7 ()	Medical Assistance	99%
High school grad	64%	Stable housing	85%
African American	97%	Unintended pregnancy	81%

Preliminary Outcomes – Unadjusted Associations Between IPI and Risk/Protective Factors*

Risk/Protective Factor	Short IPI %	Healthy IPI %	Long IPI %	Total	P Value
Current IPV	38%	14%	13%	18%	0.09
Maternal substance abuse [†]	33%	6%	25%	17%	0.03
Family social support	38%	77%	67%	65%	0.02
Friend social support	75%	72%	79%	75%	0.83
Help with baby	69%	77%	92%	80%	0.18
Depression	73%	61%	63%	64%	0.70
History of Anxiety	53%	28%	29%	33%	0.18

* Analyses by chi-square test
[†] CAGE questionnaire for alcohol or substance abuse

Results

Multivariate Multinomial Logistic Regression – Relationships Between IPI and Risk/Protective Factors

Risk Factor	OR (short vs. healthy)	95% CI	P value	OR (Long vs. healthy)	95% CI	P value
Current IPV*	13.1	1.1 - 160	0.04	1.4	0.10 – 21	0.80
Substance Abuse [†]	10.7	0.78 - 150	0.08	12.4	0.94 -160	0.06
Family Social Support [‡]	0.18	0.03 – 0.99	0.05	0.71	0.15 – 3.4	0.58

*Controlling for: family social support, substance abuse, age, anxiety, housing, smoking, education
[†]Controlling for: IPV, family social support, smoking, age, education, housing
[‡]Controlling for: substance abuse, IPV, anxiety, smoking, education

Conclusions

- IPV increased the likelihood of having an unhealthy IPI and family social support increased the likelihood of having a healthy IPI in this population of high-risk women.
- Substance abuse had a borderline association with increased risk of both short and long IPIs, while all other examined psychosocial factors were found to be insignificant.
- Additional efforts to address IPV and to enhance social support may lead to improved pregnancy outcomes.

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