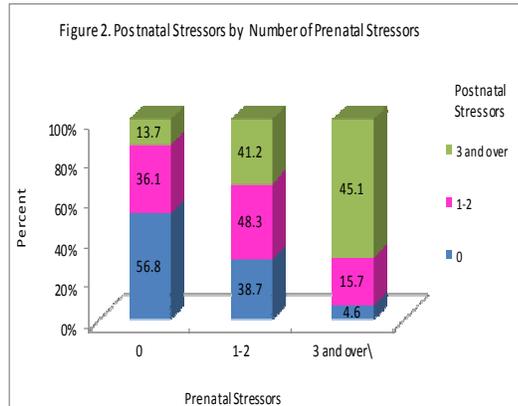
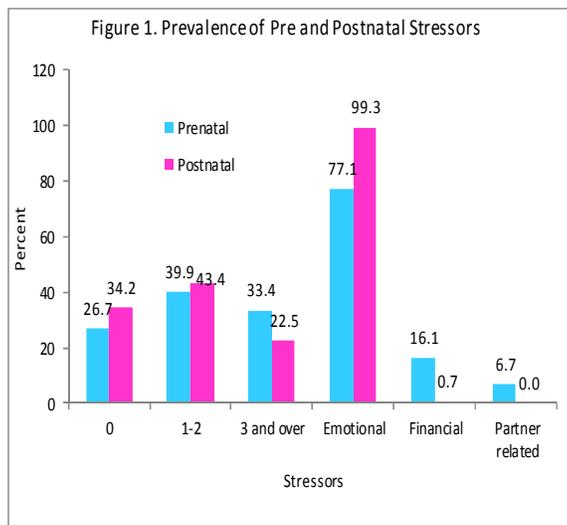


Pre and Postnatal Stressors Experienced by Oklahoma Mothers

Clinical studies link maternal stress and anxiety during pregnancy to significant immediate and long-term effects on children¹. In PRAMS, mothers were asked about 14 different stressors that occurred 12 months before delivery. In TOTS, when the infant reached two years old, mothers were again asked about 11 different stressors that occurred in the past 12 months.

This Brief will compare the pre and postnatal stressors of mothers. For this report, stressors in PRAMS were considered prenatal stressors and those in TOTS were considered postnatal stressors.

TOTS 2011-2013 survey data linked to PRAMS survey data 2009-2011 were used in this analysis. Figure 1 highlights the prevalence of prenatal and postnatal stressors. Overall 33.4% of Oklahoma mothers had 3 or more prenatal stressors compared to 22.5% with 3 or more



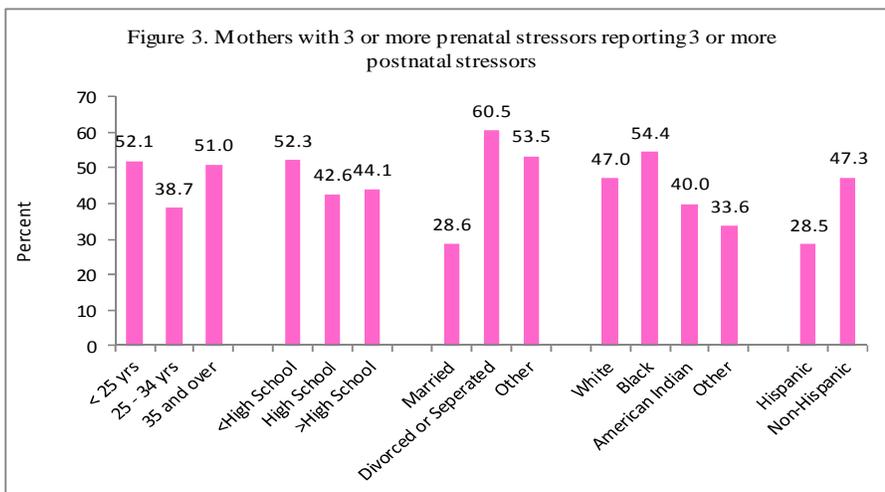
postnatal stressors. A higher rate (34.2% vs 26.7%) of mothers reported having no postnatal stressors compared to prenatal stressors. Over 99% of mothers reported having emotional postnatal stressors compared to other types of stressors (Figure 1). There was a significant correlation ($\rho=0.44$ $p<0.05$) between the number of prenatal and postnatal stressors. Over 45% of mothers with 3 or more prenatal stressors had 3 or more postnatal stressors (Figure 2).

Mothers younger than 25 years, those with less than high school education, divorced or separated mothers, and Black mothers all reported higher rates of 3 or more stressors before and after delivery (Figure 3).

Table 1 lists the prenatal and postnatal stressors included in the study. Residential moving (37.7%), arguments with partner (27.1%), and sickness in family (25.9%) were the three most often reported prenatal stressors. Sickness or death in family (38.0%), too many bills to pay (26.3%), and someone

OKLAHOMA FACTS

- In Oklahoma, 22.5% of mothers experienced 3 or more stressors in the 12 months following birth of child.
- In the 12 months before birth of child, 33.4% mothers reported having 3 or more stressors.
- Nearly half of all mothers with 3 or more prenatal stressors had 3 or more postnatal stressors.
- Over 22% of the mothers reporting 3 or more postnatal stressors were also diagnosed with postpartum depression.
- Sickness or death in family was the most often reported postnatal stressor while residential moving was the common prenatal stressor.
- Mothers younger than 25 years, with less than high school education, divorced or separated, and Black mothers all reported 3 or more stressors before and after the birth of child.



close having a drinking or drug problem (14.6%) were the most often reported postnatal stressors (Figure 5).

Over 22% of the mothers with 3 or more postnatal stressors were also diagnosed with postpartum

depression in the 12 months after the baby was born (data not shown).

In spite of continued recommendations for stress reduction and screening for depression, maternal stressors and depression continue to play a key part in many of the adverse outcomes experienced by children and mothers.

Table 1. List of Prenatal and Postnatal Stressors

Prenatal Stressors	Postnatal Stressors
Moved residence	Sickness or death in family
Argued with partner	Bills to pay
Someone close had drinking/drug problem	Someone close had drinking/drug problem
Bills to pay	Mom Sick
Death in family	Partner lost job
Partner lost job	Separated/Divorced
Sickness in family	Mom lost job
Mom lost job	No telephone
Separated/Divorced	Partner in jail
Partner did not want pregnancy	Not enough food
Partner in jail	Involved in physical fight
Involved in physical fight	
Homeless	

Studies have shown that stressful events and their adverse impact may be lessened by support from family and friends². Arranging counseling sessions to involve partners and other family members in prenatal care and delivery process may contribute to lower stress, as well as healthier mothers and babies.

Additionally, new and improved screening tools that could be administered to women at frequent intervals during postpartum visits and

well-child visits may help identify stressors and depression early in mothers.

References:

1. Targe NM, Neal C, Glover V. Antenatal maternal stress and long-term effects on child neurodevelopment: how and why? J Child Psychol Psychiatry. 2007;48(3-4):245-61. [PubMed]
2. Social support and maternal stress during pregnancy: a PATH model. Shishehgar 1, Mahrokh Dolatian2, Hamid Alavi Majd3, Zohre Teimouri2, Seyedeh Tahoori Alavi4, Parivash

Try not to stress out so much and do everything healthy for yourself and baby. Get out of abusive relationship - have family there to help and support.

- PRAMS mom

ACKNOWLEDGEMENTS

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PRAMS is a population-based surveillance system about maternal behaviors and experiences before, during, and after pregnancy. Approximately 250 mothers are selected to participate in Oklahoma each month. Mothers are sent as many as three mail questionnaires seeking their participation with follow-up phone interviews for non-respondents. Information included in the birth registry is used to develop analysis weights that adjust for probability of selection and non-response. Prevalence rates were calculated and correlations were calculated using SAS callable SUDAAN. PRAMS 2009-2011 had response rate of 68.3% and TOTS 2011-2013 had response rate of 67.8%.

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