An Integrative Review of Early Life Adversity and Cortisol Regulation in Pregnancy
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Objective
To synthesize published findings on the relationship between early life adversity and hypothalamic-pituitary-adrenal (HPA) cortisol parameters in pregnant women
Theoretical Model

Early Life Adversity

Altered Physiologic Set-Points

Emotional and Behavioral Health

Pregnancy

Fetal Development

Child Neurodevelopment

Results

N = 25 articles

Cortisol Measures: 48% saliva, 40% hair, 8% plasma & 4% amniotic fluid

Cortisol Parameters
1) Diurnal
2) Phasic
3) Tonic
4) Pregnancy-related changes

Results

Diurnal: daytime circadian variation
- Elevated cortisol awakening response (CAR) (4/5)

Phasic: response to an acute stressor
- Blunted phasic cortisol response (2) and delayed/prolonged phasic cortisol (1)

Pregnancy-related changes
- Progressive increase in CAR (1) and steepening of diurnal cortisol slope (1)
Results

Tonic: increased baseline levels →
Current Social Stress
  Low social support (1)
  Low socioeconomic status (1)
  Adulthood trauma (1)
  Black race / racism (3)
Current Psychological Symptoms
  Psychological distress (1)
  PTSD symptoms (1)
  Dissociative symptoms (1)

Takeaway

The cumulative effect of life course adversity in women is associated with altered cortisol regulation → evident during pregnancy

Implications for Women's Health
→ Resilience to stress and trauma
→ Emotional and behavioral health
→ Intergenerational transmission of trauma

Thank you!