

Pregnancy – Obtaining a New Identity

- Pregnancy is a period of preparation & profound change
- Pregnancy includes a progressive – systematic process involving cognitive/behavioral and physical changes
- Combination of *nature* and *nurture*
- Maternal individual influences are incorporated by the fetus



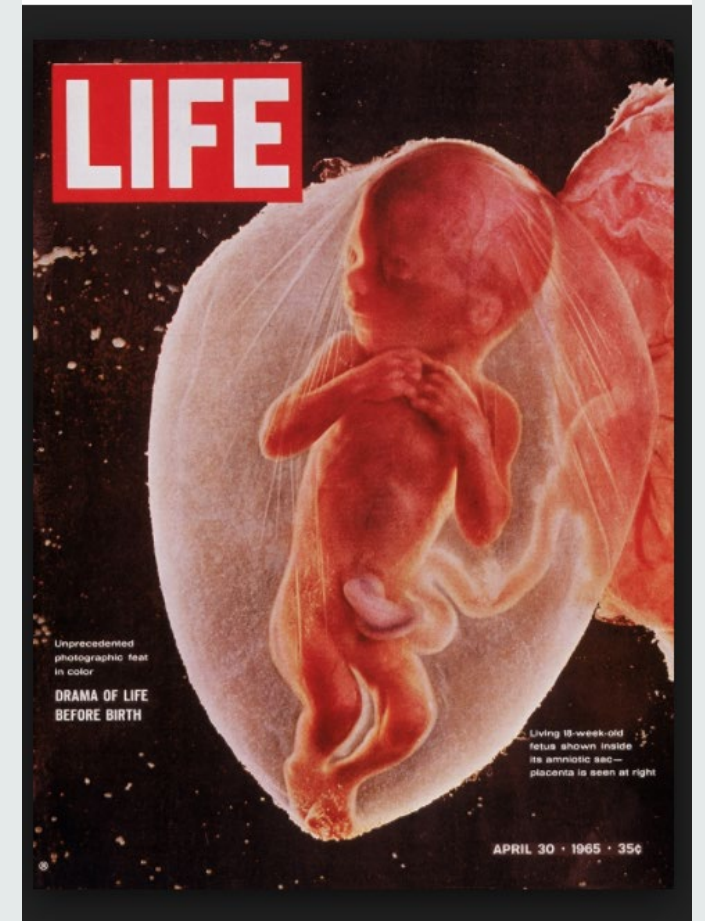
Pregnancy – Fetal “Staging Period” for Later Life

Historical views of pregnancy and fetus

- Passive incubator
- Fetus impervious to external influence (safely sealed away)
- Fetus perfect parasite (skimming nutrients)

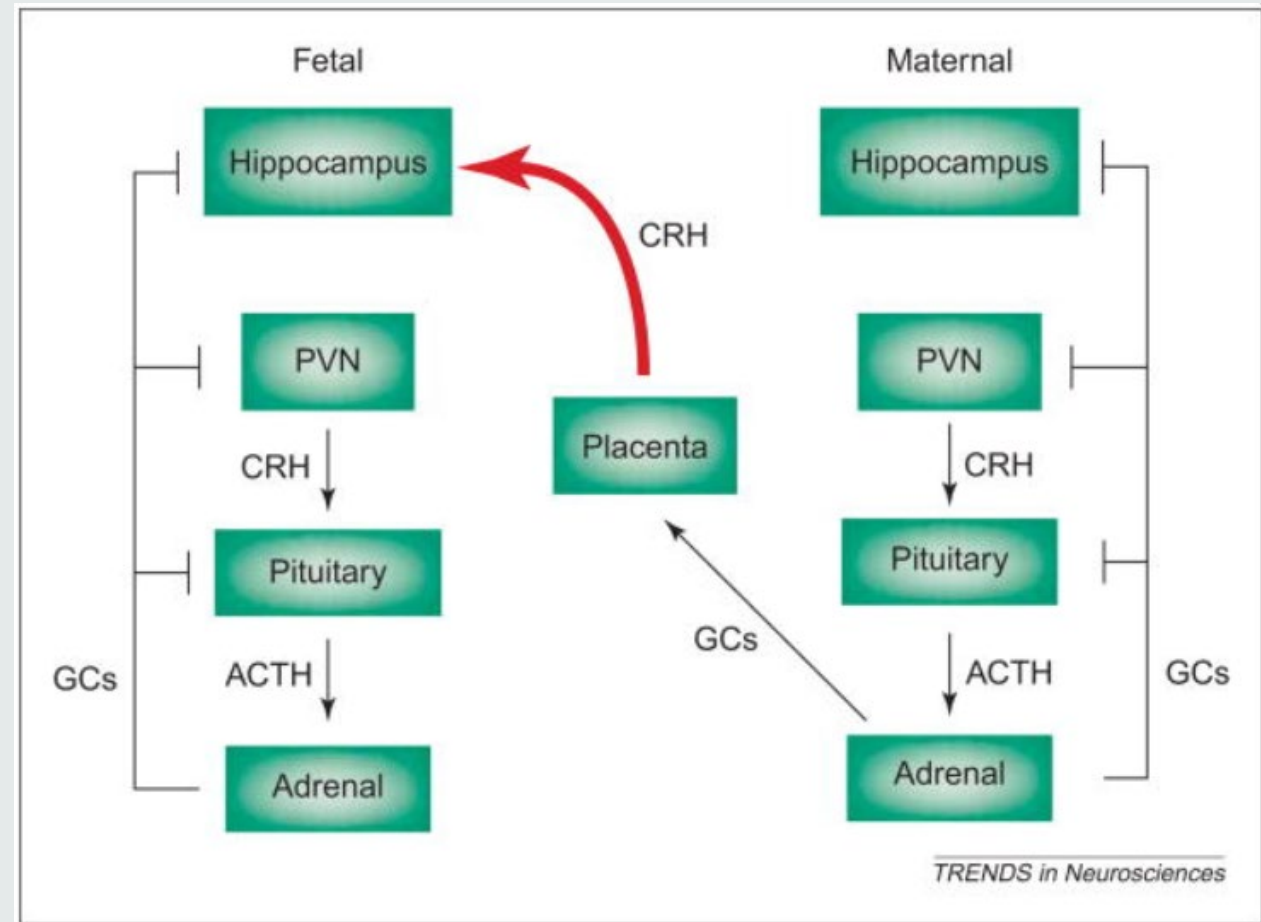
More recent views/understanding of pregnancy and fetus

- Fetus affected by:
 - Maternal health (includes emotional)
 - Maternal diet
 - Maternal weight
 - Maternal exercise



Physiologic Effects of Prenatal Anxiety/Stress

- Systems responsible for reproduction, growth, & immunity ALL linked to stress system
- Sustained stress activates maternal neuroendocrine stress axis – see higher fetal plasma CRH levels
- Maternal-origin CRH reaches fetal brain affects fetal learning & memory functions
- Fetal exposure to increased glucocorticoids can retard growth (maternal anxiety/stress & undernutrition)
- Increased cortisol inhibits fetal development (maternal anxiety/stress & depression)



Meaney et al., 2007

Long-term Physiologic Effects of Prenatal Anxiety/Stress

- Altered neurodevelopment – cognitive and intellectual capabilities
 - Decreased “working memory” (at 8 yrs)
- Inattention and hyperactivity
- Increased mental disorders



Prenatal Anxiety/Stress??

How Much? What Kind?



- **Major life events (death of a family member)**
 - 1.4 – 1.8 times greater risk of preterm birth
- **Catastrophic community-wide disasters (earthquakes, terrorist attacks)**
 - 6 of 9 studies showed significant effects on gestational age or preterm birth
- **Chronic stress (general strain, homelessness, household strain, neighborhood stress)**
 - Predicted preterm birth
- **Pregnancy-specific anxiety/fears**
 - Significant effect on both timing of birth and birthweight
- **Depressive symptoms/mood**
 - Decreased fetal growth and birthweight & increased preterm birth

Most significant – Pregnancy-specific anxiety

Pregnancy – Anxiety/Stress (Fears)

- Is it the right time to have a baby?
- Will I be a good mother?
- Do I have time to be a mother?
- Do I/we have the financial resources to support a child?
- Will I be able to carry and have my baby?
- Will I or the baby be harmed in childbirth?
- Will I be able to lose the pregnancy weight?
- Will I be able to maintain control of my body and emotions in labor?



Pregnancy-Specific Anxiety (Maternal Adaptation Theory)

- Acceptance of pregnancy
- Identification with a motherhood role
- Relationship with spouse/partner
- Relationship with mother
- Preparation for labor
- Fear of pain, helplessness or loss of control in labor
- Well-being of self and unborn baby in labor



Dimensions of Prenatal Anxiety

- Acceptance of Pregnancy
 - Planned & wanting the pregnancy vs. ambivalence, body changes, timing
- Identification with a Motherhood Role
 - Motivation for motherhood, envisioning oneself as a mother, anticipating future as mother
- Relationship with Mother
 - Availability of the grandmother, reactions to the pregnancy, respect for daughter's autonomy
- Relationship with spouse/partner
 - Availability, empathy, cooperativeness, trustworthiness, adjustment to new role
- Preparation for Labor
 - Thinking vs. avoidance, congruence between fantasy vs. reality, doubts/fears, level of confidence

Dimensions of Prenatal Anxiety

- *Fear for Pain and Loss of Control in Labor*
 - Loss of control of body and/or emotions, ability to trust nursing & medical staff, attitudes towards use of medication
- *Well-being of Self and Baby*
 - 1st trimester – focus on herself
 - 2nd trimester – focus increasingly on unborn child
 - 3rd trimester – concern for self and baby; well-being tied to body-image and completeness of baby

Significance within Military

- Female military beneficiaries make up 58% of those receiving military medical care
(includes Active duty, retirees, eligible family members)
- Maternal conditions (pregnancy & pregnancy complications) account for 25% of all direct care bed days within the military healthcare system
- 50% of the pregnancies are unplanned – prenatal anxiety and depression are increased with unplanned (particularly unwanted) pregnancies
- Military readiness and morale are intricately linked.
- Well-being of the military family tied to military readiness and morale

