Objectives

- Discuss childbirth as a neurobiological and neuroendocrine event.
- Review how neurobiology affects parental attachment development.
- Summarize how specific hormones play a role in parental attachment.
- Describe how brain plasticity and hormones affect parental attachment in the intrapartum and postpartum period and the child in later years.
- Define terms to describe brain changes in parents and the interaction with the infant in the development of parental attachment.
- Compare and contrast how brain changes are different in the mother and father in relation to parental attachment.

Content Outline

1. Neuroendocrine events that affect parental attachment
   1.1 Oxytocin
   1.2 Cortisol
   1.3 Vasopressin
   1.4 Dopamine
2. Factors Affecting Parental Attachment in the Postpartum Period
   2.1 Skin to Skin (touch)
   2.2 Lactation
3. Factors Adversely Affecting Parental Attachment in the Intrapartum Period
   3.1 Cesarean delivery
   3.2 Induction of labor
   3.3 Morphine administration
   3.4 Preterm delivery
   3.5 Mother-infant separation
   3.6 Bottle feeding
4. Brain Basis for Human Parenting
   4.1 Brain-hormone correlations
   4.2 Brain parenting correlations
   4.3 Exclusivity
5. Maternal and Paternal Brain Correlations
   5.1 Plasticity
   5.2 Connectivity
   5.3 Behavioral synchrony
   5.4 Hormonal

Reading Material Resources

Module WB1729: Neurobiology of Parental Attachment is based on the resources listed below. A copy of the resources are included with the module.
