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FACTORS THAT INFLUENCE PRENATAL DEVELOPMENT

Prenatal development is the process in which a human embryo or fetus gestates during pregnancy, from fertilization until birth. Often, the terms *fetal development* or *embryology* are used in a similar sense. After fertilization, the process of embryogenesis, (the early stages of prenatal development) begins[3].

In the United States, about 97% of mothers deliver infants who are healthy and problem-free, a phenomenon that illustrates just how remarkably regular and predictable the sequence of prenatal development is. However, this sequence of development is not immune to modification or outside influence. Some outer factors that can negatively influence prenatal development are drugs, alcohol, cigarettes, disease, poor nutrition, stressors, chemicals. Furthermore, the potential problems fall into two general classes: genetic and chromosomal problems that begin at conception, and problems caused by damaging substances or events called teratogens - substances that can lead to birth defects or even death during the prenatal period [2, p. 14]

Since antiquity, people have thought that the emotions and experiences of a pregnant woman impinge on her developing fetus. The premise that maternal psychological distress has deleterious effects on the fetus is the focus of active scientific inquiry today. A resurgence of interest in the prenatal period as a staging period for later diseases, including psychiatric ones, has been fostered by the enormous attention devoted to the hypothesis of fetal programming advanced by D.J. Barker and his colleagues. Fetal programming implies that maternal and fetal factors that affect growth impart an indelible impression on adult organ function, including functioning of the brain and nervous system [1, p.71].

In the 1930s, the Fels Research Institute initiated a longitudinal study of child development that commenced with intensive investigation of the fetal period. Most existing research has focused on the effects of maternal distress on pregnancy itself. It has been indicated that women who express greater distress during pregnancy give birth somewhat earlier to somewhat lighter babies than do women who are less distressed [1, p.71]. As pregnancy advances, the behavioral capabilities of the fetus become similar to those of a newborn infant, although the fetus is limited by the constraints of the uterus. Nonetheless, measurement of fetal motor activity, heart rate, and their relation to each other provides a fairly complete portrait of fetal development. New techniques present an opportunity to examine the manner in which the psychological state of the pregnant woman may affect development prior to birth, and perhaps permanently change the offspring's course of development [2, p.72].

In such a way we can speak about different factors that may cause their influence on prenatal development. Until recently, the fetal period of development was a black box. Although fetuses remain one of the few categories of research participants who can be neither directly viewed nor heard, opportunities to measure fetal development still exist. The implicit assumption has been that prenatal stress, abuse of drugs, alcohol and cigarettes, different diseases, poor nutrition have consequences for child development after birth because they have more immediate effects on the development of the nervous system before birth.

Literature

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