

Risk Factors to Neurological Development

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Editorial

Though fetal mortality and monitoring and has improved dramatically in modern societies, the prevalence of several developmental disorders such as autism and ADHD has increased in the US and elsewhere.¹ Moreover, there continues to be many high risk pregnancies and situations which place the fetus at risk for long-term developmental difficulties.^{2,3} Some high risk factors are maternal age (younger than 15, older than 35), gestational diabetes,⁴ eclampsia, various placental complications, prenatal drug and alcohol exposure,⁵ small for gestational age and perinatal cyanosis.⁶ Many of these situations result in a normal healthy developing child, however, some children born in such context, have subtle (and sometimes pronounce) developmental anomalies. Empirical research is starting to show that children who have been exposed to some of the aforementioned risk factors may be at an increased risk for developmental delays. Fortunately the developing brain has great neuroplasticity potential and an overabundance of neuronal synapse which not only facilitates child learning potential (which can be more effectively than adults for certain skills-language and second language acquisition and musical skills), but also allows for significant benefits for early intervention. For this reason, early and appropriate diagnosis is essential. The child developmental neuroplasticity is an asset when children are exposed to appropriate educational training and stimulating environments, but can be a liability when children are exposed to maltreatment or trauma.⁷ Empirical research is suggesting that the aforementioned adverse conditions may be associated with later problems in learning and psychosocial adjustment. The developing central nervous system has amazing potential and more research is needed to understand this system and its response to the environment. Given the diverse array of medical and psychosocial factors that impact human development, there is a plethora of potentially informative topics for study in this domain of healthcare. The Journal of Pediatric and Neonatal Care may provide an excellent platform for clinicians and researchers to submit their research on developmental issues and share their clinical insights. This can be a forum which helps facilitate the evolution of this fascinating field.

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Conflicts of interest

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