

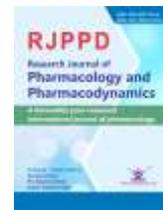
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REVIEW ARTICLE

Remodeling in the Prefrontal Cortex of a Brain-related to Higher Executive Functions in Adolescence: Its effects on Behavior

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ABSTRACT:

Adolescence is a critical stage of the developmental trajectory, where a child's transition to independent living may result in lead healthy or unhealthy styles. During this period, it is easier to mend an individual as a healthy adult; at the same time, misguided children may enter into risky behaviors. The aim of the study to get an insight into changing brains of adolescents and their behavioral outcomes. The current review search engine proceeds with reviewing the literature in the past through electronic databases such as PubMed, Medline, and Scopus databases using keywords such as adolescent stage, the brain of teenagers, risk behaviors, reduction in gray matter in the prefrontal cortex. The current study reviewed and analyzed 20 articles. The reviewed articles would increase the awareness and insights regarding brain changes and their behavioral outcomes. This insightful information's drawn out of the study may help professionals and parents who intervene in the adolescent's problem behaviors.

KEYWORDS: Adolescent stage, Changing Brain of teenagers, Risk Behaviors, Reduction in Gray matter in Prefrontal Cortex.

INTRODUCTION:

Adolescence is a time of restructuring that in the prefrontal cortex, the new neuronal networking is formed in a brain structure especially connected to higher executive functions such as planning and social behaviors. One of the research in the literature reveal; that the developmental trajectory of postnatal brain development seen with the maximum density of gray matter reached, which is observed first at the primary

sensorimotor cortex, this reviewed study further reveals the prefrontal cortex matures last [1] at around the age 13 to 20. The adolescent brain modeled structural changes by reconstruction of neuronal networking [2] in the developmental trajectory of life span; adolescence is the phase of life that comes in between late childhood and adulthood. [1]

Adolescence is a period that brings physical and mental maturation in growing children as they grow as adolescents; their emotional maturity achieved at this period changeover the adolescents as an independent and responsible adult to fit into their society. The past works of literature have well defined the developmental aspects of adolescence upraised to establish intimate

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