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Triukhan V. P.

group 1-A 81

Bohdan Khmelnytsky National University of Cherkasy

Research adviser - Doctor of Pedagogy, Professor Vovk O. I.

LATE ADOLESCENTS' PSYCHOLOGICAL PROPERTIES OF THE BRAIN

The purpose of this paper is to provide insights of a period of significant neurobiological and psychological changes in the brain during the late adolescence. During this time, individuals undergo significant maturation in cognitive, emotional, and social development.

To begin with, such period has a greater susceptibility to social and emotional cues, with higher activation in the amygdala and increased activity in the striatum [3]. This heightened sensitivity may lead to the formation of risky behaviors like substance use [9]. Risk-taking behavior is linked to the growth of the limbic system, the brain's emotional center, which fuels impulsive and sensation-seeking behavior. The research suggests that the growth of the prefrontal brain, which is involved in impulse control and decision-making, may help to alleviate this behavior [2].

Moreover, late adolescence is a stage of rapid brain growth, with late adolescents showing greater reactivity in the prefrontal cortex when undertaking complicated cognitive tasks. This suggests that they have evolved more sophisticated cognitive control processes than younger people [6]. They also have higher cognitive plasticity and the capacity to consider numerous viewpoints than earlier adolescents. Late adolescents also undergo major social and emotional changes, with higher emotional complexity and broader and differentiated emotional experiences than earlier adolescents. This is likely due to the prefrontal cortex's ongoing maturation and the formation of more complex cognitive functions [1, p. 3-4]. As they negotiate the transition to maturity and the growing pressures of social and occupational duties, late adolescents demonstrate increased sensitivity to social standards and expectations [5].

Another essential point is that the late adolescence is a vulnerable time for the onset of mental health issues, such as depression, anxiety, and substance use disorders [10]. Recent studies have shown that late adolescents' ability to reason logically and abstractly improves during this period of growth. This is believed to be linked to continuing prefrontal brain development, which is responsible for higher-level thinking functions like planning, problem-solving, and decision-making [2]. Additionally, late adolescents' ability for introspection and self-reflection is linked with increased psychological well-being, as it enables them to gain greater insight into themselves and their position in the world. The continual improvement of the prefrontal cortex, which allows for more complicated and abstract reasoning, is believed to aid this process of identity creation [4].

Additionally, late adolescence may be defined as a period that fosters freedom and autonomy in terms of social and emotional growth. According to L. Steinberg, it is evident in the increasing significance of peer interactions and an ambition for increased independence from parents and other authority figures. Late adolescents report greater agency and control over their lives than earlier adolescents, as well as more contentment with their social interactions [11]. However, T. Paus, M. Keshavan, and J. Giedd think that the shift to maturity can be stressful and difficult, especially for those who experience major social or external pressures [7]. C. Rees and

J. Freeman emphasize the importance of social and environmental assistance for young people during this critical growth period [8].

Considering the aforementioned, late adolescence is a period of significant psychological peculiarities and neurobiological changes in the brain. These specificities are associated with greater cognitive flexibility, abstract thinking, introspection, and independence, as well as increased sensitivity to social and emotional stimuli. However, this period is also associated with increased risk-taking behavior and vulnerability to stress and mental health problems.

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