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Emotion Regulation and Health status from Adolescence to Adulthood among students of Doda district of JK (UT), India

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Abstract

The capacity to restrain powerful emotional urges in order to accomplish alternate goals is called emotion regulation. Emotion regulation impairments are emphasised as a primary transdiagnostic risk factor underlying the emergence of substance abuse, addiction, and associated psychopathology in adolescence. The fundamental question is whether we are in control of our emotions or whether they are in control of us. In the early years of development, emotion regulation systems take a long time to develop. Some kids perform far better than other in regulating their emotions and accordingly do well as adults. Children's individual differences can help us in understanding the long-term economic & health-related outcomes of emotion regulation abilities. Inability to control one's emotions is linked to,

1. Mental health difficulties (anxiety, depression ADHD)
2. Low academic achievement
3. Increased risk of drug abuse /obesity
4. Increased aggression/violence
5. Risky sexual behavior etc.

In terms of the processing of emotional information and emotion regulation, empirical research consistently demonstrates variations in the neural activity during adolescence. A higher amygdala response to fear and a higher ventral striatum activity in response to rewards are two examples of the more active neural circuits in adolescents compared to both children and adults. Because emotion regulation systems take a long time to develop in the first few years of life, early experiences that children have in their surroundings have a significant impact on how they regulate their emotions later in life. Brain tissue records its developmental history and affects later physical, mental, and emotional health. It is true that many types of psychopathologies are characterised by disordered and dysregulated mood, and it has been suggested that trouble regulating emotions is a basic weakness that is present in all psychiatric diseases and presents as dysregulation at various levels of analysis, including biology, physiology, and behaviour.

Keywords: Emotions, Dysregulation, Amygdala, Parentification, Cognition Stress Response Psychopathology.

Introduction

One of the many issues young people experience that contributes to the sharp rise in incidence of comorbid psychiatric diseases seen during adolescence, including increasing internalising, externalising, and substance use disorders, is emotion regulation impairments. Adolescents are more susceptible to elevated emotionality and increased negative affect, and they experience more labile and dysregulated mood compared to adults. This is in addition to the increased stress related to concerns of identity development, the beginning of puberty, and increasing peer influences. These turbulent and dysregulated emotional events are also more likely to have an impact on young people's behaviour and decision-making.

Emotions arise from activations of specialized neuronal populations in several parts of the cerebral cortex, like the anterior cingulate, insula, ventromedial prefrontal, and subcortical structures, such as the amygdala, ventral striatum, putamen, caudate nucleus, and ventral tegmental area. Feelings are conscious, emotional experiences of these activations that help neural networks mediating ideas, language, and behaviour. As a result, they improve our capacity to anticipate, pick up on, and reevaluate environmental inputs and circumstances based on prior experiences. As the primary subcortical emotional brain structure that continuously assesses and integrates a variety of sensory information from the environment and assigns appropriate values of emotional dimensions, such as valence, intensity, and approachability, the amygdala is central to contemporary theories of emotion. Through changes in short- and long-term synaptic plasticity, implicit associative learning, and efferent projections from its central nucleus to cortical and subcortical structures, the amygdala plays a role in the regulation of autonomic and endocrine functions, decision-making, and adaptations of instinctive and motivational behaviours to changes in the environment. Amygdala is an emotional memory bank; a repository of all our triumphs and failures, hopes and fears indignation and frustration. It uses this emotional memory in its role as sentinel scanning all incoming information, everything we see and hear from moment to moment, assessing it for threat and opportunity by matching what is happening now with the stored templates of our past experiences.

Review of Literature

From an early age, emotion management is critical for success in life, especially when handling stress (Compas et al., 2017; Zahniser & Conley, 2018). People employ different techniques to regulate their emotions differently, and this has an impact on their social interactions and overall well-being (Gross, 2008; Gross & John, 2003), particularly at critical developmental stages (John & Gross, 2004; Zahniser & Conley, 2018). Young adults may find the transition to college particularly difficult since they have to deal with demanding social, academic, and interpersonal demands while relying less on family support and being expected to behave in a more self-directed and independent manner (Arnett, 2016; Lee & Jang, 2015; Zahniser & Conley, 2018). While the majority of research on emotion regulation that is currently available has concentrated on expressive suppression and cognitive reappraisal, recent evaluations advise examining additional strategies to more fully capture emotion regulation (Aldao, 2013; Bonanno & Burton, 2013; Rottenberg, 2017), particularly as it overlaps with coping strategies (Compas et al., 2014).

A significant portion of research on emotion regulation centers on two tactics: expressive (emotional) suppression and cognitive reappraisal (Ellis et al., 2019; Kelley et al., 2019; Lopez et al., 2020). Cognitive reappraisal is the process of reevaluating a situation in order to change its emotional significance and influence (Gross, 2008). It is believed that emotion regulation evolves with time and reaches its peak in late adolescence (Gross, 2015; McRae et al., 2012; Riediger & Klipker, 2014). People start to employ a wider variety and differentiation of coping mechanisms around the middle of adolescence, especially when it comes to approach-oriented

coping (Kavsek & Seiffge-Krenke, 1996). Teenagers seem to become more adept at choosing the best resource for assistance when facing a specific issue between the ages of 12 and 18 (Skinner & Zimmer-Gembeck, 2007), yet one student study across six years of high school found little evidence of increased general affect-regulation ability (Griffin et al., 2015).

Methods

We followed a sample of 1323 students from school and college in Doda district of JK (UT) for two years, assessing them four times to observe their emotional behaviour.

Results and Discussion

Human life is profound, organic, and phenomenal. We can cooperate flexibly in large numbers, an exceptional power to control the world. For us to make the best decisions for our survival, emotions are crucial in how we construct and perceive the world. Consider an African baboon searching for bananas on a banana tree while a lion is nearby, relaxing next to the banana tree. The baboon must consider his gut feelings in decision-making process, such as how much hunger he is experiencing before risking his life to obtain bananas, whether the bananas are ripe, and his fear of ferocious animals, in addition to real-time sights and sounds. The Baboon will finally be able to make a decision with the aid of this healthy fusion of his mental capabilities. Imagine a lizard with a brain that is incapable of thought and communication with other lizards of its species. It has no plan or strategy; it can only rely on sensory inputs and reflexes acting in the moment to protect itself against predators. On the other hand, humans with such a developed brain can think, imagine, and connect with other people to assure not just survival but a higher quality of life. The fact that the human brain has evolved to selectively allow the development of emotional brain areas and emotional learning before the development of rational/cognitive capabilities indicates the importance of emotions and emotional learning as well as its phenomenal possibilities. Before the age of 25, when the cognitive brain centre takes over to govern the functioning of the emotional brain centres, the emotional brain centres are operating at full capacity. The quality of the mental state and behaviour of teenagers, which in turn affects the mental state and behaviour in adulthood, are determined by the emotional learning that occurs during childhood. Since emotional learning is tied to an individual's survival, it is crucial for emotional learning that children are exposed to the full range of positive and negative experiences. However, as the youngster is not yet able to discern or properly manage the emotional impulse, this learning should take place under the supervision of emotionally stable caregivers/ parents. The typical responsibility of a parent is to provide for their child's necessities and direct their growth. Parents must provide a safe and secure environment for their children to effectively process their emotions. However, because of their own issues with emotion management, parents often ignore, repress, or trivialise their children's feelings, which causes the latter to form insecure attachments instead of secure ones, such as anxious, avoidant, or fearful avoidant attachments. This impairs their ability to develop secure attachments in adult relationships too. Some of a child's adverse early experiences may be traumatic, leading to the development of CPTSD or PTSD and a persistent activation of their HPA stress response system, which can seriously harm the child's physical health, mental capacities, and cognitive abilities. In some cases, the child may occasionally be forced into an adult role to satisfy the requirements of the parents. This is referred to as Boundary dissolution. The lines between parents and children are blurring. Having solid and proper boundaries is one part of one's self identity. We must be able to distinguish our own thoughts, feelings, and actions from those of others. It's similar to how turtles use their shells as boundaries. Children must learn to set limits so that their shells are open enough to let things in and out. The vulnerable child who depends on parents to harden his or her shell will simply absorb those thoughts and emotions, which may cause emotional dysregulation of the child in different ways. If the shell of parental

boundaries with poor parenting dissolves, the parents will be able to transmit their emotions and feelings to the child without a filter. The results of this parenting approach could leave the child more susceptible to feelings of inadequacy, humiliation, guilt, and fear of rejection, among other thingsin adult life which if not addressed properly could potentially result in mental health illnesses and personality disorders. This role-reversal, in general, impedes the process of identity formation. As a result, parental role reversal may cause development to be impaired or hindered, which may lead to problems with self-identity such as a lack of boundaries, low self-esteem, and emotional dysregulation.

In a study of young people, primarily college students from the erstwhile district Doda, it was found that nearly 90% of those who had grown up in emotionally stable caregiving environments performed well in terms of their physical, mental, and social well-being as well as academically. Additionally, they had emotional intelligence skills including self awareness, social awareness, self management, and social management and were in no way on the verge of substance abuse or unhealthy relationships. They had the abilities like listening and oral communication, adaptability and creative responses to setbacks and obstacles, personal management and confidence, group and interpersonal effectiveness cooperativeness and team work, skills at negotiating disagreements and leadership potential. On the other side, people who performed poorly in school/colleges lacked emotional intelligence abilities, engaged in substance misuse, lacked self-control, and were less socially and self-aware. When the early environments of these students and a select few others who engaged in extreme behaviour, including violent and criminal acts, suicide attempts were investigated, it became clear that in 90% of the cases, the parents or other primary carers had their own emotion regulation difficulties and gave their children unhealthy early environments, which led to the development of mental health issues and associated psychopathology including substance abuse in them.

Conclusion: Early experiences that children encounter in their surroundings have a big impact on how they regulate their emotions later in life since emotion regulation systems take a long time to develop in the first few years of life. Later physical, mental, and emotional health is influenced by the developmental history recorded in the brain tissue. The development of the neurocircuitry between the amygdala and PFC is the foundation of our mature capacity to control our emotions. We can perceive environmental risks thanks to the amygdala, a deep brain area that starts to develop very early. It is very quick acting and helps us in keeping ourselves safe. It responds immediately to the threat in environment. In adulthood amygdala has strong connections with PFC. It assists us in keeping ourselves safe and acts extremely quickly. When there is a threat in the environment, it reacts right away. Amygdala and PFC have robust connections in adults. These neurocircuits aid in regulating some of the amygdala's excessive arousals and we have the capacity to control our emotions as adults. It takes a long time to design this system that is why children struggle to control their emotions. Research suggests that the amygdala is most sensitive during the postnatal period. Consequently, the events of the first year of life truly have a big impact on how the amygdala functions throughout the remainder of the person's life. The hierarchy of brain development also means that events at step A will have an impact on step B.The connections between the amygdala and PFC, as well as the development of the brain in early adolescence, are all impacted by what happens to the amygdala in early childhood. Therefore, the beginning of many mental diseases occurs during the adolescent transition. If this is the case, we should pay close attention to what happens during childhood, when the environment was shaping the system's development. Early caregiving circumstances have a big impact on later behaviours. The amygdala is more reactive in early childhood. Early children education on environmental dangers is highly sensitive, especially when PFC regulation is absent.

Children aged 4 to 9 do not have a regulatory link between the PFC and the amygdala. PFC is still undergoing tremendous growth and is unable to control amygdala impulses. Early environments thus can have potent effects on later life. Emotional learning in juvenile periods is potent and enduring. Things learned very early in life, positive or negative can be used later in life to reduce anxiety etc. Parent is the ultimate stimulus for child for better or worse. This attachment bond is strongly learned in babies. Humans stay in that situation for a long time allowing for all possible kinds of experiences and consequential development of neurocircuitry for use in later life. It gives us a prolonged plasticity as a human. The longer we stay immature the more we have neuroplasticity because of care giving environments. We don't have to develop our brains quickly; we have someone who helps us manage the environment under many circumstances. The infant is not just immature adult, the infant attaches instead of fight or flight in response to threat. Emotionally regulated mother's presence blocks amygdala activity and fear learning. Mother's physical presence/absence switches the amygdala on or off. Even in cases of maltreatment of children by their parents, they make strong attachments with their parents. Stress in the early life experiences causes the release of stress hormones which cross the blood brain barrier and influence the growth and activity of amygdala. Stress teaches the brain what is likely to happen to us later in life and makes us grow necessary neurocircuits to handle threats in later life. Early stress causes the overgrowth of the survival/stress response circuits and counterintuitively accelerating the growth of the survival circuits as an adaptation in response to unsafe world. Short term adaptation of brain develops with more regulatory ability during childhood (parentified). Physical activity is really important even during young stages ameliorating mental health conditions.

The neurocircuits for emotion regulation that form during the early years of life have a significant impact on how the person will respond to stressful personal and social situations in later life. Understanding these emotional dynamics will also help in the development of methods and mechanisms to support older adults who struggle with emotion regulation difficulties and have developed mental and personality disorders including substance abuse disorder, stress, anxiety depression etc. It will also help in educating the general public about this new way of thinking about health and social well-being. These findings suggest that, in order to effectively address children's mental health difficulties, psychological counselling services should be centred on the family members and carers who are in charge of overseeing the child's environment. It has been observed that children who grow up with emotionally stable parents and other carers learn how to regulate their emotions and deal with life's challenges effectively, which has a positive impact on their physical mental and social well-being later in life.

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