

Stress and Yoga in Children

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DESCRIPTION

Children suffer from stress, just like adults. Yet, their psychological response to stress depends on their developmental stage. Young children mainly seek support from adults or use distraction whereas older children can try to put things into perspective or search for solutions when there is a problem. In all developmental stages however, there are inter-individual differences between children in how they respond to negative events: Some children find adaptive ways of coping whereas others fail to reduce their stress or even worsen it (for example by worrying). For some children, coping with stress proves to be such a difficulty that physical symptoms arise. For example, up to twenty-five percent of the children regularly experience symptoms of fatigue, headache or abdominal complaints. How can these physical consequences of psychological stress be explained and reduced? Responses of the Brain and the Body to Stress the brain adapts in response to events. The amygdala is essential in detecting stress as well as in stress-related memory processes and it is central to manifesting stress-related behavior. These functions are achieved partly by affecting changes in hippocampal functioning. The hippocampus is required for the formation of stable, explicit memory. It is also involved in the so called 'Hypothalamus-Pituitary-Adrenal' (HPA) axis activation by the secretion of ACTH from the anterior pituitary, which, in turn, stimulates the secretion by the adrenal cortex of glucocorticoid hormones, (mainly cortisol). This axis has a looping system: Inhibitory glucocorticoid feedback on the ACTH secretory response acts to limit the duration of the total tissue exposure to glucocorticoids. Glucocorticoids are the final effectors of the HPA axis and participate in the control of whole body homeostasis and the organism's response to stress.

The hypothalamus also activates the adrenal medulla (a somewhat more immediate, short response), which is part of the autonomic nervous system. This path is referred to as the 'sympathomedullary pathway' that primarily works through adrenaline. Together, these neurological responses serve to prepare a person for the so called 'flight or fight response', or in other words: Help activate the body for a reaction to what evokes the stress. In response to these neurological mechanisms, the cardiovascular system, metabolic machinery, and immune system all show functional changes in response to stress to make this fight or flight response. In time the body usually returns to a calmer state. Sometimes, however, for some people, problems arise because of chronic activity or inactivity of the central nervous system, metabolic, cardiovascular and/ or immune system. It has been found that people with personality type D (A joint tendency toward negative affectivity and social inhibition) are at an increased risk for cardiac events.

CONCLUSION

There is an association between stress and physical symptoms in children and theoretically yoga could be an effective intervention. Even though the available literature mainly supports this assumption, evidence is still very limited and future research is necessary before we can make more definite conclusions. This is especially likely to happen when stress is prolonged, for example, because a person worries and frequently anticipates negative events and/or ruminates. In the short term, physical symptoms arise and in the long term, the risk of serious medical conditions is increased.

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