

Editorial

Prolonged Stress Leads to Serious Health Problems: Preventive Approaches

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As long as humans have been around, there has been stress. Stress is well known fact involved significantly in the onset of almost all major depressive disorders. Moreover, prolonged stress in humans caused serious neurological disorders, cardiac problems (including heart attack), gastric ulcers, asthma, diabetes, headaches, accelerated aging and premature death. ⁽¹⁻⁴⁾ Stress is basically of two types: Acute and chronic stress, which has also been well defined in animal models. ⁽⁵⁻⁸⁾ Acute stress results from specific events or situations that involve novelty, a threat to ego which leave the people in a poor sense of control. Importantly, sometimes this stress can be good also as it keeps individuals alert, motivated and primed to respond. This happens due to the release of stress-induced hormones, which help the individuals to deal with the situation. ^(6,7) On the other hand chronic stress, which can be occurred by repeated exposure of the situation. This stress has been linked to major neurological disorders, heart diseases, high blood pressure, high cholesterol, diabetes etc. Now it is well documented that up to 70% of serious diseased populations are believed to be effected by chronic stress. ⁽¹⁻⁴⁾ Therefore, proper chronic stress management takes on great importance given the wide range of bodily systems impacted by stress hormones. The response against stress involves a complex signaling pathway among neurons and somatic cells. ^(9,10) Besides these, stress also exerts detrimental effects on cell functions through impairment of oxidant-antioxidant homeostasis leading to oxidative cellular damage and altering monoaminergic response, which play critical role in almost 80% of human disorders including neurodegenerative and neuropsychiatric disorders. ⁽⁹⁻¹⁴⁾ While understanding of the chemical interactions underlying the stress response has increased vastly in recent years, much remains poorly understood. In response to chronic stress, two types of responses are reported, physiological and psychological, which are mediated by the hypothalamic-pituitary-adrenal (HPA) axis, sympathoadrenergic and brain monoaminergic systems, that subsequently leads to behavioral, physiological and neurobiological changes. ⁽⁹⁻¹⁴⁾ Moreover duration and nature of an applied stressor are also important determinants to know whether adaptation to the stress response acts as being protective or damaging. ⁽¹⁵⁾ Direct intervention on neurotransmitters might be beneficial as augmentation strategies for the treatment of stress-induced disorders. But various preliminary stress coping strategies should be followed to avoid becoming a depression patient. The research area focuses on improved understanding of how stress-related illnesses and health problems arise and can be prevented in and outside of the workplace. ^(15, 16) Despite a wide range of strategies and different categorizations for anti-stress approaches, two main categorizations are mentioned almost universally: Coping Response to Emotion (or Emotion Focused Coping) and Coping Response to Problems (or Problem Focused Coping). ^(15, 16) Coping Response to Emotion can be achieved by performing the following well defined approaches: (i) Trying to reduce the negative emotional responses associated with stress such as embarrassment, fear, anxiety, depression, excitement and frustration. (ii) Keeping busy to take the mind off from the issue. (iii) Emotional disclosure, which involves expressing strong emotions by talking or writing about negative events. (iv) Cognitive reappraisal, it involves the cognitive modulations to construing a potentially emotion-eliciting situation in a way that changes its emotional impact. (v) Stop thinking of negative thoughts. (vi) Praying for guidance and strength. (v) Meditation, (vi) Eating good food, (vii) Shopping, (viii) Drugs intake. ⁽¹⁵⁾ On the other hand 'Coping Response to Problems' can be achieved by targeting the causes of stress in a practical ways such as (i) By stepping back, (ii) Looking at the situation objectively, (iii) Without letting emotion get in the way, (iv) Begin to understand the source of the stress. ^(15,16)

In my opinion, both coping approaches are effective in the specific circumstances. When choosing an effective coping strategy, one must take into account the changeability of the stressor, the individual's reaction to the stressor, and the adaptability of the individual's capacity through changeable physiological responses. In short, providing individuals with appropriate adaptive coping skills can reduce negative health outcomes and increase the ability to manage ongoing stress. The

good news is that stress levels depends on our own behavior and decisions and that we can optimize our bodies' responses to stress based on how we live our daily lives.

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