Journal of Sleep Disorders & Therapy
ISSN: 2167-0277

Rao, J Sleep Disord Ther 2016, 5:4
DOI: 10.4172/2167-0277.1000e136

Editorial Open Access

Early Maternal Separation Stress on Fear and Sleep

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Received: July 17, 2016; **Accepted:** Aug 03, 2016; **Published:** Aug 10, 2016

Editorial

Why do some people bite their nails excessively whenever they are anxious or stressed? Many a times, scientists relate nail biting to an anxiety disorders such as obsessive compulsive disorders (OCD). People who bite their nails may also suffer from sleep disturbances. The root cause for this habit is not clear as it is varying from person to person. According to Sigmund Freud, anxiety is the root cause for many psychiatric disorders such as OCD, social phobic disorders, Schizophrenia, depression etc. Anxiety is an alarming signal as well as epidemic which affects people in every facets life and if it is uncontrollable give rise to increased vulnerability to mood disorders. The high prevalence of anxiety and high incidence of sleep disturbances indicate sleep disorders as the consequence of anxiety disorders [1]. Since then, anxiety has been viewed as a state of anguished mind caused by disturbed internal and external environments.

Stress and sleep disorders are always reported together. Evidences suggest that an exposure to stress [2] and nutrition-rich diet [3] during childhood will determine the emotional regulations in adult life. An exposure to stress during early life likely to increase the corticosterone release even under basal conditions [4]. However, how differences in corticosterone secretion affect the quality of sleep architecture and formation and retention of emotional memory is not clear. In addition, neural mechanisms underlying such changes are not being studied till now.

Several scientists believed that success of the human life mainly depends upon the fear and anxiety one experiences. But when anxiety is excessive, it becomes life threatening, disturbs not only the sleep, but also the performance of an individual. This hypothesis was biologically supported by the evidence that chronic maternal separation and isolation stress during stress hyporesponsive period (SHRP) in animals leads to exaggerated increase in the fear memory, anxiety in brightly lit environment and pathological sleep [5]. This study also indicates that stress has increased sleep, specifically, rapid eye movement sleep that was associated with impaired functional connectivity between medial prefrontal cortex and hippocampus. In addition, childhood stress can produce chronic cortisolemia [6] suggesting that cortisol plays an important role in mediating anxiety to stress. In summary, neurodevelopmental disorders such as Schizophrenia, depression, social phobia recognised during adulthood could be due the past experience. Thus, definite therapies on such psychiatric diseases could be initiated only after analysing and uncovering the past experiences from childhood.

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