The Relationship Between Stress, Fatigue, And Cognitive Functioning

Posted on January 30, 2020

Introduction

The reference article states the relationship between fatigue and stress along with the comparison of the scenarios or the practical effects these factors put on people in multiple cognitive functions such as job, personal and social life, and most importantly, psychological behavior. The central theme of the article is the effects of stress and fatigue on the human brain and body. The way a person behaves or socializes with his peers significantly reflects his mental health, as mental health is related to how a person meets people around him. There are some cases in which a person is suffering from stress and also faces fatigue, which affects his brain. Sometimes, the person is even unaware of the fact that he is suffering from any such psychological disorder. An individual's performance in his daily life, comprising of social, practical, and personal life, may significantly be affected if he has stress.

One of the reasons to review this article is to get an idea of how and why stress and such psychological factors affect a person's life and health. It is observed that fatigue and stress can play a vital role in degrading a person's performance, learning capability, and other mental and physical abilities. Commonly, these mood changes are mainly caused by a person's way of perceiving things that are affecting an individual in the daily routine. Most of the stress is due to the fears a man faces in a day. Such concerns account to be fear of failure, disregard, health issues, personal life, etc. In the long run, people tend to have a lot of uncertainties, as life is highly unpredictable. The stress of being a silent killer may lead to numerous fatal diseases and mental issues as well.

Research shows that stress can cause various psychological and physical problems. The common ways to detect whether a person is stressed are the lack of cognitive thinking, lower ability to focus, deprived reactions, and poor or irrational decision-making skills. In this article, the authors have specifically concentrated on adults, and their results may vary by age. The article has raised a point that college students, which include teenagers the majority, face learning disability at this age. It then says that college students of all age groups are way too vulnerable to emotional and social problems (Joels, Pu, Wiegert, Oitzl, & Krugers, 2006).

Role Of Psychology

Psychology deals with the study of the mind or dealing with any cognitive matter. The professionals in this particular field get into this profession after graduating from college. Being a college student in their life, they have a better understanding of the college level students and are well aware of the

problems faced by the students in this age. Due to stress, a person can make any irrational or inappropriate decision in his life. As the health of an individual is also affected by stress, this may sometimes cause some serious issues with a person's psyche. A person can have stress even if he is unable to perform well or on time. Evey person is bound to some limits and restrictions. Everyone's thoughts, lifestyle, responses to certain things, and physical appearance are different from each other. Thus, such research articles open a window for such learning.

In research, it has been acknowledged that patients have comparatively beneficial results when they are provided with sensory information regarding their psychological disorder and its cure. When the patients are acutely aware of their mental as well as physical conditions, they are less likely to get more stressed and would avoid taking further stress. It has also been observed that most of the patients develop false expectations regarding their capability to overcome fear. For a while, it can lead to even more unforeseen issues (Ahlberg et al., 2003).

Theoretical Perspective

It is likely that fatigue and stress might be affected in transient ways over a period and depending upon the nature of the stress a person gets (Bourne et al., 2003). The differential effects of any lingering task have been tested over a particular crowd, mainly comprising teenagers. The set of people taken as a sample consists of 60 students, of which 65 % were female, and 35% were male students with ages from 17 to 22.5 years. The rate of missing data in this particular analysis came out to be only 0.03%, and in all the samples, the mean was just three standard deviations below the outliers.

Sometimes, working memory is correlated with stress and fatigue in a negative perspective. However, the cognitive abilities of a person are significantly affected by the influence of such factors in any individual. In a previous study, the computational capability of the human brain has been investigated and cognitive functions. It was found that working memory associated with all cognitive jobs is highly affected by fatigue and stress, resulting in poor performance in coding, information retrieval, weaker problem-solving-ability, skills of reasoning, and storage (i.e. Lieberman et al., 2005). It was also found that fatigue impacts supervisory considerations, but the aptitude for orientation is not that affected (Palmer et al., 2013).

Data Analysis

The study, based on the research, finds that the reference article has a robust analysis of the four hypotheses presented in it. The findings of the reference article are quite satisfying regarding the data and analysis provided by the author. The participants were college students who were all going through the Perceived Stress Scale and the Iowa Fatigue Scale for individual measures of stress and fatigue of each candidate. For the induction of added fatigue, the subjects completed the Serial 7 test

as well. It is a scale over which 11 items on the scale measure energy, cognitive fatigue, and the efficiency of the person in a month's duration. The questionnaire that was filled out by the subjects noted the experiences of the candidates for multiple symptoms related to stress and fatigue. It was found that fatigue had the highest score from the questionnaire as per the ranges declared by the participants (Palmer et al., 2013).

Critical Aspects Of The Article

Stress affects a person's ability to think, eat, behave, and socialize in daily life and a person's perspective on certain things. However, the study shows that there is a limited consensus as to whether stress and such psychological disorders alter the learning process inhibitory or facilitatively. In numerous domains, the pressure and disclosure of stress-causing events show restrained outcomes in most cognitive functions. Research shows that traumatic and stress-inducing situations can cause destructions in reaction time, logical reasoning, and observation power (Lieberman et al., 2005).

This review revolves around the theme that studies different tests and biological samples over a person's mind and body. In an atmosphere of learning, it is to be explored how such fatal psychological problems affect a person's life and health. Talking about the youth of the world, it is now seen that stress is becoming one of the most common problems adults are suffering from nowadays. For that, to study its effects and propose a hypothesis for the prevention and treatment of stress is the need of the hour. Although all age groups are affected by stress and fatigue, adults are the most to suffer from it, including teenagers and mature people (Arnsten et al., 1999).

Strengths. The article widely explains the impacts of stress and fatigue and draws a complete picture of the effects these factors can impose on a person. The article also provides a theoretical analysis of the hypotheses, which contributes to their validity and authenticity. The four (4) hypotheses explained in the article relate to universal stress and fatigue fatalities. Moreover, the materials provide a complete data set of the general findings in this analysis (Palmer et al., 2013).

Weaknesses. The analysis in this report is done on a small group of college students. The age group considered in this study is comparatively less stressed out than young adults, who face more social, economic, and health issues contributing to more stress. The validity of this article may be improved if further contributing factors are added to it. This is for the reason that the age, demographics, subjects, and race of the persons chosen for the study have produced similar results.

Conclusion

In this paper, the referred research article has been reviewed. The details regarding the article's strength over the topic and its category influence in the study of psychology have been briefly elaborated. The data set and sample set involved in the general findings of the article have been evaluated. Although having a limited group of samples, the journal provides valid and accurate results

for that particular set of individuals.

References

Ahlberg, K., Ekman, T., Gaston-Johansson, F., & Mock, V. (2003). Assessment and management of cancer-related fatigue in adults. *The Lancet*, *362*(9384), 640-650.

Bourne Jr, L. E., & Yaroush, R. A. (2003). Stress and cognition: A cognitive psychological perspective.

Joëls, M., Pu, Z., Wiegert, O., Oitzl, M. S., & Krugers, H. J. (2006). Learning under stress: how does it work?. *Trends in cognitive sciences*, *10*(4), 152-158.

Lieberman, H. R., Bathalon, G. P., Falco, C. M., Morgan, C. A., Niro, P. J., & Tharion, W. J. (2005). The fog of war: decrements in cognitive performance and mood associated with combat-like stress. *Aviation, Space, and Environmental Medicine*, *76*(7), C7-C14.

Palmer, L. K. (2013). The Relationship between Stress, Fatigue, and Cognitive Functioning. *College Student Journal*, *47*(2), 312-325.

Southwick, S. M., Bremner, J. D., Rasmusson, A., Morgan, C. A., Arnsten, A., & Charney, D. S. (1999). The role of norepinephrine in the pathophysiology and treatment of posttraumatic stress disorder. *Biological Psychiatry*, *46*(9), 1192-1204.