

Sugars, Exercise and Overall Health According to Medline Database

Hoeuwe Liu*

Department of Intensive Physical Therapy, University of North Texas Health Science Center, Fort Worth, TX 76107, USA

Abstract

There is a direct link between a number of addictions and mood states that exercise may help to alleviate. Sugar addiction has recently been identified as a different type of binge/compulsive/addictive eating behaviour that leads to a significant health problem. Regular moderate-intensity exercise has been shown to effectively and positively impact physiological imbalances caused by a variety of morbid conditions, including affective disorders. Physical exercise has been prescribed as a complementary therapeutic strategy in a broader range of psychiatric diseases. A thorough literature search was conducted using the Cochrane Library and MEDLINE databases (search terms: sugar addiction, food craving, exercise therapy, training, physical fitness, physical activity, rehabilitation and aerobic). The goal of this review is to discuss the importance of physical activity in reversing our modern society's bleak picture of unhealthy diets and sedentary lifestyles.

Keywords: Diabetes • Exercise • Health • Psychiatric disease

Introduction

Highly processed foods may be linked to "food addiction" and thus considered "addictive," as they share characteristics with illicit drugs. Indeed, because of the high concentrated doses and the rapid rate at which refined carbohydrates are absorbed into the system, highly processed foods high in sugar content are linked to addictive-like eating behaviour. Food addiction is similar to psychoactive drug addiction, according to a growing body of neurochemical and genetic evidence. Sugar and sweet rewards, according to some recent experimental research in laboratory rats, can be even more addictive than traditional substances of dependence and abuse, such as cocaine. In discrete trials procedures, rats given the option of choosing between cocaine and sweet fluids show a strong preference for the non-drug re enforcer. Furthermore, food contains both homeostatic and hedonic components, making it a potent, natural, conditioning stimulus to the brain's reward pathways. However, there is a wide range of overeating, from casual overindulgences to pathological drives to consume palatable food. In either case, the resulting addictive appetite behaviour (up to bingeing) may be linked to the current obesity pandemic, with obesity being reinforced by this surge of palatable reward [1,2].

Literature review

On the other hand, high glycaemic foods are associated with postprandial hyperglycemia and hyperinsulinemia, which can cause hunger and, ultimately, weight gain. Despite the fact that numerous studies have questioned whether sugar is the sole cause of diabetes (not specifically addressed in any randomized-controlled trial) or obesity, the majority of them have failed to ratify a single linkage. The primary pathological event is most likely excessive energy

intake, which leads to overweight, obesity, and type 2 diabetes. These morbid conditions would not be caused by a single nutrient or sugar consumption per second. In fact, once total energy intake is taken into account, many published studies have found no link between sugar consumption and body weight. When sugar is replaced with energy-equivalent macronutrients in meta-analyses of randomised controlled trials, there is no increase in body weight. Simply put, large availability (ubiquity, affordability) of any type of palatable food becomes increasingly responsible for the dramatically increasing rate of obesity, particularly in modern Westernized countries [3-5].

Discussion

Animal studies show that the sugar-bingeing model mimics an addiction-like phenotype but does not necessarily result in obesity. On the other end of the overeating spectrum, genetic and epigenetic factors cause impairment of the brain reward circuitry, resulting in hypo-dopaminergic function and abnormal craving behaviour. Dopamine (DA), a powerful neurotransmitter, regulates feelings of well-being and is activated by a variety of conditions such as excessive carbohydrate and alcohol consumption, use of crack cocaine, cocaine, opioids, nicotine abuse, aggressive behaviours, and sexual arousal. Physical activity, particularly sustained endurance exercise, has the same effect [6].

Conclusion

Aside from its obvious anti-inflammatory properties, exercise has been extensively debated as a natural anti-depressant. The psychological benefits of long-term exercise adherence in clinical and community populations are well established. Exercise can boost resistance to the development of depression and other stress-related psychiatric disorders, such as anxiety and stress itself. The pathophysiology and treatment of stress-related disorders are linked to central reward circuitry, which includes neurotransmitters and neurotrophic factors. Despite the fact that there is little known about the effects of physical activity on psychological stress-related symptoms, multiple physiological and neuroendocrine mechanisms have been proposed.

Acknowledgement

None.

*Address for Correspondence: Hoeuwe Liu, Department of Intensive Physical Therapy, University of North Texas Health Science Center, Fort Worth, TX 76107, USA, E-mail: hoeuwel@gmail.com

Copyright: © 2022 Liu H. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 13 September 2022, Manuscript No. jsmds-23-87354; **Editor Assigned:** 15 September 2022, PreQC No. P-87354; **Reviewed:** 27 September 2022, QC No. Q-87354; **Revised:** 03 October 2022, Manuscript No. R-87354; **Published:** 10 October 2022, DOI: 10.37421/2161-0673.2022.12.276

Conflict of Interest

None.

References

1. Aagaard, Per, and Jesper L. Andersen. "Effects of strength training on endurance capacity in top level endurance athletes." *Scand J Med Sci Sports* 20 (2010): 39-47.
2. Chaabene, Helmi, Olaf Prieske, Yassine Negra, and Urs Granacher. "Change of direction speed: Toward a strength training approach with accentuated eccentric muscle actions." *Sports Med* 48 (2018): 1773-1779.
3. Eckardt, Nils. "Lower-extremity resistance training on unstable surfaces improves proxies of muscle strength, power and balance in healthy older adults: a randomised control trial." *BMC Geriatr* 16 (2016): 1-15.
4. Maiorana, Andrew, Itamar Levinger, Kade Davison and Neil Smart, et al. "Exercise prescription is not just for medical doctors: the benefits of shared care by physicians and exercise professionals." *Br J Sports Med* 52 (2018): 879-88.
5. Cannataro, Roberto, Erika Cione, Diego A. Bonilla and Giuseppe Cerullo, et al. "Strength training in elderly: An useful tool against sarcopenia." *Front Sports Act Living* (2022): 287.
6. Vikmoen, Olav, Truls Raastad, Olivier Seynnes and Kristoffer Bergstrøm et al. "Effects of heavy strength training on running performance and determinants of running performance in female endurance athletes." *PloS one* 11(2016): e0150799.

How to cite this article: Liu, Hoeuwe. "Sugars, Exercise and Overall Health According to Medline Database." *J Sports Med Doping Stud* 12 (2022): 276.