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What Is the Impact of Marijuana Usage on Sexual Dysfunction Among Individual and How Do Factors Such As Frequency of Use, Dosage, and Duration of Marijuana Consumption Influence Sexual Function

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ROWAN - VIRTUA
School of Osteopathic Medicine

What Is The Impact Of Marijuana Usage On Sexual Dysfunction Among Individual And How Do Factors Such As Frequency Of Use, Dosage, And Duration Of Marijuana Consumption Influence Sexual Function

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Background

Sexual health is a fundamental aspect of human well-being and yet it remains clouded by numerous influences, both psychological and physiological. The relationship between marijuana usage and its potential impact on sexual function in recent years has elicited increasing attention. The landscape regarding marijuana legalization and its widespread consumption begs inquiry on the relationship between cannabis consumption and sexual health outcomes. The marijuana plant's two primary cannabinoids, tetrahydrocannabinol (THC) and cannabidiol (CBD), have been scrutinized for their potential impacts on sexual function. While some users and anecdotal accounts report enhancements in sexual desire and pleasure, there are conflicting reports such as performance issues and decreased libido. The endocannabinoid system is crucial to investigate as it is the crucial regulator of various physiological processes including sexual function. THe interactions between cannabinoids and this system may be key in deciphering the mechanisms underlying observed effects. Factors such as frequency of use, dosage, levels, and duration of consumption are variables to consider when attempting to explore the complex relationship between marijuana usage and sexual dysfunction.

Significance

Marijuana usage intersection with sexual health is a topic of increasing relevance. Insights into the frequency of use, dosage, and duration are crucial for informing clinical practice in addition to public health initiatives. This further translates to informing policymakers and businesses. Given the increasing legalization and commercialization, the incites derived from this review are crucial and may serve as a foundation for identifying gaps in current knowledge and may provide avenues for future research.

Methods

On December 29, 2023, I identified studies by searching through the database PubMed. The following string of search terms were used to identify peer-reviewed articles in each database: "Marijuna OR "Cannabis" AND "Male" AND "Male OR Female". Only relevant articles regarding male and female sexual dysfunction due to cannabis use were included.

15 articles used after full text-appraisal from 2015-2021

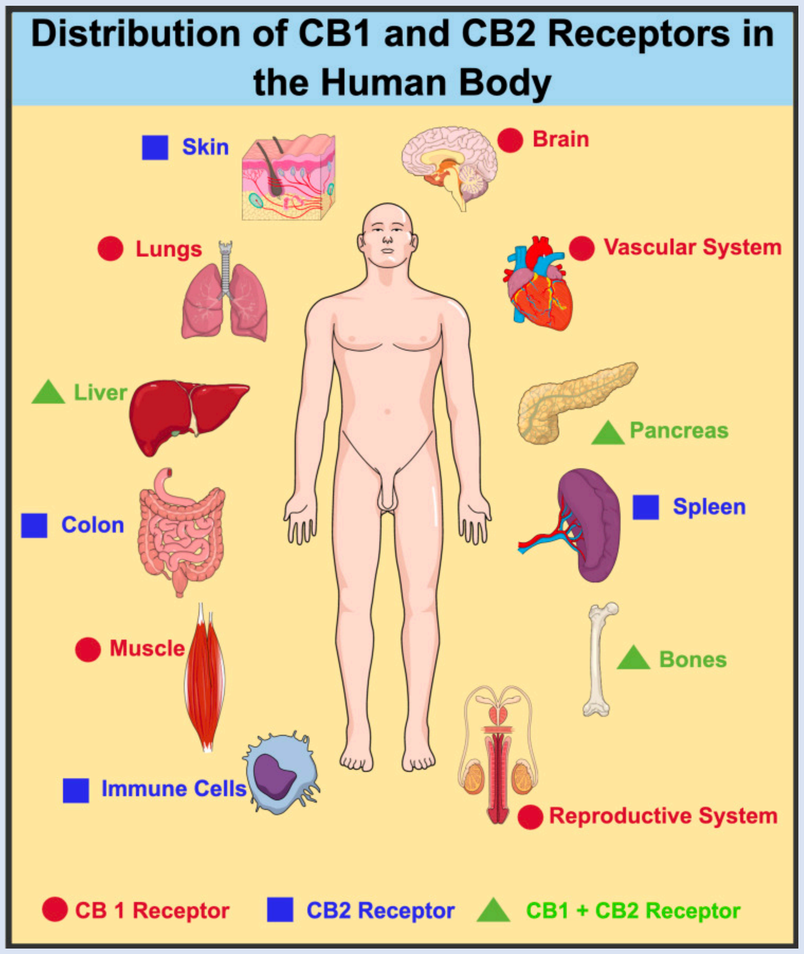

Figure 1: The Effect of Marijuana on the Incidence and Evolution of Male Infertility A Systematic Review

Results

The role marijuana plays physiologically within the body is multifaceted and the topic of the endocannabinoid system must be briefly explored to understand the complex interplay. [15]CB1 and CB2 receptors exist throughout the human body, notably in the plasma membrane of the acrosomal region/midpiece/tail of spermatozoa, ovary, testis, vas deferens. which are responsible for reducing pain and stimulating appetite. The presence of exogenous cannabinoids can compete for CB receptors resulting in interference of the ECS system which has been hypothesized to interfere with the complex hormone-regulation of the male and female bodies including testicular size, sperm morphology, motility, as well as LH, FSH, testosterone levels.

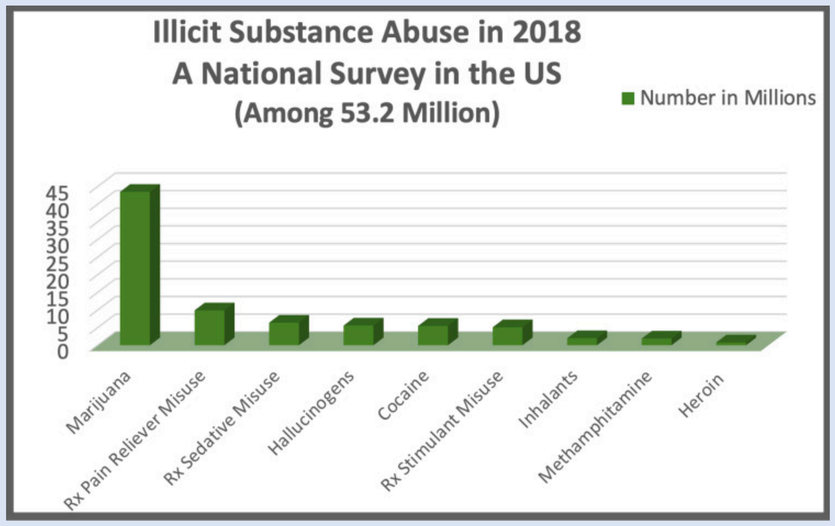

Figure 2: Key Substance use and mental health indicators in the United States: results from the 2018 National Survey on Drug Use and Health

Discussion

Marijuana consumption has been linked to negative impacts on the male reproductive system, affecting parameters like sperm count, motility, and viability. These effects are of particular prominence in men with pre existing sub fertility or infertility issues. The influence on hormones is difficult to standardize or draw conclusions as there is variation based on dosage and frequency of marijuana consumption. Existing literature has limitations such as inadequate sample sizes, or bias such as self reporting. To draw more definitive conclusions that may inform future clinical practice, larger clinical trials must be conducted.

Future Directions

While this review contributes to the understanding of the topic, several limitations must be considered. Future research employing longitudinal designs & objective measures of sexual function, and comprehensive assessments of co-existing factors like medical conditions and concomitant substance abuse is needed. Limitations exist in regards to ethical considerations in a prospective human trial. Additionally, further research into the underlying psychological and physiological mechanisms can provide a more comprehensive understanding of the complex relationship between marijuana usage and sexual dysfunction which will further inform targeted intervention therapies.

References