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COMPARATIVE REVIEW ABOUT HYPNOSIS & SLEEP

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ABSTRACT The long historical connotation between hypnosis and sleep is still reproduced in many of the standard induction propositions that should enter into a deep, relaxed, soothing sleep. There are many counterparts between sleep and hypnosis. The phenomenological resemblances between sleep and hypnosis raise many fascinating theoretical and methodological questions. Behaviourally, sleep is easily predictable. The behavioural indication for sleep includes the person's general appearance, physical slackening, lack of communication with and response to the external world, and special manifestations such as snoring. The electronecephalographic (EEG) during hypnosis appears to be quite dissimilar from the basic EEG patterns of sleep stages 2, 3, and 4. Most authors agree that the EEG during hypnosis is alike to waking EEG patterns entailing of desynchronized fast activity and alpha activity. Complex cognitive activity may block alpha. The chapter abridges correlations between the sleep-induced response and factors of hypnotic behaviour.

KEYWORDS : Hypnosis, Meditation, Neural mechanisms, anaemia, insomnia, circadian rhythm

INTRODUCTION

Hypnosis is a special psychological state with certain physiological attributes, similar to sleep only superficially and marked by an operative of the individual at a level of awareness other than the ordinary conscious state. This state is considered by a degree of increased receptiveness and receptiveness in which inner experiential perceptions are given as much significance as is generally given only to outside reality.[1]

Hypnosis is a peculiar altered state of consciousness distinguished by certain marked symptoms, the most prominent and invariable of which are the presence of continuous alpha waves on the electroencephalograph, hyper suggestibility in the subject, a concentration of attention on a single stimulus, and a feeling of "at oneness" with the stimulus. Hypnotic states may be induced by various techniques applied to oneself or by another.[2]

Sleep is a vital part of our daily humdrum—we spend about one-third of our time doing it. Eminence sleep – and getting adequate of it at the right times -- is as crucial to endurance as food and water. Without sleep we can't form or sustain the pathways in our brain that let us learn and create new memories, and it's stiffer to concentrate and retort quickly.

Sleep is vital to a number of brain functions, including how nerve cells (neurons) interconnect with each other. In fact, our brain and body stay remarkably active while we are in sleep. Recent findings suggest that sleep plays a housekeeping role that removes toxins in our brain that build up while we are awake.[3]

METHODOLOGY

This detailed comparative study includes revealed data about Hypnosis and sleeping overviewed information along with their mechanisms. This information collected through electronic search from plentiful review & research articles along with a number of well-known websites.

HYPNOSIS AND SLEEP: SIMILARITIES

Slow wave sleep is essential for human health and well-being, as well as memory alliance. This stage of sleep has been shown to diminution with age, and this decrease has been accompanying with the development of several neurological illnesses. Remedy drugs aimed at refining sleep (or more accurately: deadening people) have been shown to decline slow wave sleep. These drugs can also have solemn negative side effects, and are often highly addictive. Slow wave sleep (also called deep sleep) is principally stage three of the sleep cycle. It is called slow wave because an EEG will show corresponding low-frequency activity during this stage. EEGs use electrodes placed on the scalp to measure brain activity by sleuthing electrical changes.

One possible technique for increasing and/or preserving healthy levels of slow wave sleep is hypnosis. Hypnosis has been distinct in many ways, but a simple definition is that it is a state of altered mindfulness, achieved after an induction procedure, wherein the mesmerized person is highly 'focused and absorbed'. Hypnotic suggestions are prompts given to a hypnotized person that are intended to alter their behavior.[4]

Hypnosis is a state of realization where you are more susceptible to proposition. It does not mean that we are controlled or made to do something against our will, we should fully aware of our surroundings and able to respond to the hypnotherapist. Hypnosis is a state of relaxation where our mind is more open to receiving helpful suggestions.

Sleep hypnosis is similar to cognitive behavioural therapy in that we are coached to enter an almost trance-like state in a professional setting. In this process we should sit or lay down relaxed as the hypnotherapist guides imagery to change the negative thought patterns and bad habits around sleep. We should not fall asleep during this session; the positive suggestions enter subconscious to alter the behaviour for the better.

Sleep hypnosis meditation works by the power of hypnotic suggestion to combat our sleep disorder. Sleep hypnosis work can be done by ourselves with guided meditation or we can consult with a professional hypnotherapist. At the beginning of the session, the hypnotherapist will explain the process and ask consent from the individual and then the rest of the process will start.5

SLEEP VS HYPNOSIS BASED ON THE VARIOUS ASPECTS

Brain wave patterns throughout hypnosis, hypnotic sleep and normal sleep

Characteristic patterns of brain waves can be recorded during various levels of sleep, normal or narcoleptic, and in coma or coma-like states. In short, any lessening of consciousness below the rousing level is mirrored in the brain wave decoration. The EEG is thus an indicator of the sleep—wakefulness level prevailing during any particular organism-environment relationship. Hypnosis is a particular form of organism-environment amalgamation about which interest has recently been rekindled. Relatively rapid changes between wakefulness and sleep may be affected by hypnosis. Characteristic changes in the brain wave pattern should accompany these behavioural changes during hypnosis. Investigators who have recorded the encephalogram during hypnosis have, however, reported only slight

differences between waking and hypnotic patterns or none at all. Dynes published records which show no discernible change in the EEG pattern as the subject passed into a hypnotic trance.[6]

Objective technique for distinctive sleep from the hypnotic trance

Most persons employ approximately one third of their lives sleeping, and even if considerable time and study have been expended in the illumination of this phenomenon, little is known about it. It is recognized that certain miracles occur during sleep. There is a generalized muscular slackening which roughly parallels the depths of sleep; the temperature of the body falls; tendon reflexes tend to weaken and may fade; breathing becomes periodic, and there is a slight acidosis, with upsurge of carbon dioxide in the blood. Contrary to earlier theories regarding the blood supply of the brain in the sleeping state, it is now fairly well reputable that there is no anaemia of the brain during sleep. Nevertheless, until the advent of the EEG there was no instrument or objective measuring device which would indicate the sleeping state with any degree of certainty. The characteristic changes which occur in the EEG.[7]

Hypnosis extends restorative slow-wave sleep

Brain waves - a gage of sleep quality

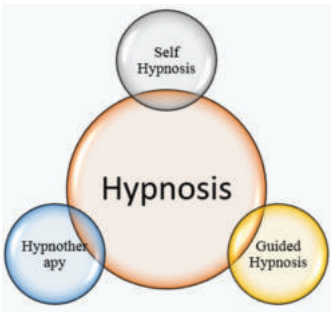
Hypnosis is a process that can influence processes which are very problematic to control voluntarily. Patients with sleep turbulences can indeed be successfully salted with hypnotherapy. Though, till now it hadn't been proven that this can lead to a quantitatively measurable change in sleep. To quantitatively measure sleep, electrical brain activity is chronicled using an EEG. The distinguishing feature of slow-wave sleep, which is estimated to have high restorative capacity, is a very even and slow oscillation in electrical brain activity. As per one research study, 70 healthy young women was taken. They derived to the sleep laboratory for a 90-minute midday nap. Previously falling asleep they listened to a special 13-minute slow-wave sleep hypnosis tape over loudspeakers, established by hypnotherapist Professor Angelika Schlarb, a sleep specialist, or to a neutral spoken text. At the commencement of the experiment the topics were divided into highly gullible and low susceptible groups using a standard procedure (Harvard Group Scale of Hypnotic Susceptibility). Around half of the population is moderately vulnerable. With this method women attain on average higher values for hypnotic vulnerability than men. Nevertheless, the researchers imagine the same positive effects on sleep for highly impressionable men.

Slow-wave sleep increased by 80 percent

In another study, sleep researchers Maren Cordi and Björn Rasch were able to demonstrate that highly susceptible women qualified 80 percent more slow-wave sleep after listening to the hypnosis tape associated with sleep after heeding to the neutral text. In equivalent, time spent awake was abridged by around one-third. In contrast to highly gullible women, low suggestible female participants did not benefit as much from hypnosis. With added control experiments the psychologists confirmed that the beneficial impact of hypnosis on slow-wave sleep could be attributed to the hypnotic suggestion to "sleep deeper" and might not be reduced to mere expectancy effects.

TYPES

Hypnosis



Bestowing to psychologist Maren Cordi "the results may be of major reputation for patients with sleep difficulties and for older adults. In distinction to many sleep-inducing drugs, hypnosis has no adverse side effects." Fundamentally, everyone who replies to hypnosis could advantageous from amended sleep through hypnosis.[8]

- **Guided hypnosis:** This form of hypnosis involves the use of tools such as chronicled directives and music to induce a hypnotic state. Online sites and mobile apps often exploit this form of hypnosis.
- **Hypnotherapy:** Hypnotherapy is the use of hypnosis in psychotherapy and is practiced by licensed physicians and psychologists to treat conditions including depression, anxiety, PTSD, and eating disorders.[11]
- **Self-hypnosis:** Self-hypnosis is a development that occurs when a individual self-induces a hypnotic state. It is often used as a self-help tool for controlling pain or managing stress.[9]

Stages of sleep

There are two basic types of sleep: REM sleep and non-REM sleep (which has three different stages). Each is associated to specific brain waves and neuronal bustle. While sleeping cycle we go through all stages of non-REM and REM sleep several times during a typical night, with increasingly longer, deeper REM periods occurring toward morning.

Stage 1 non-REM sleep is the swop from wakefulness to sleep. During this short period (lasting several minutes) of relatively light sleep, our heartbeat, breathing, and eye movements slow, and muscles get relaxed with occasional twitches. The brain surfs begin to slow from their daytime wakefulness decorations.

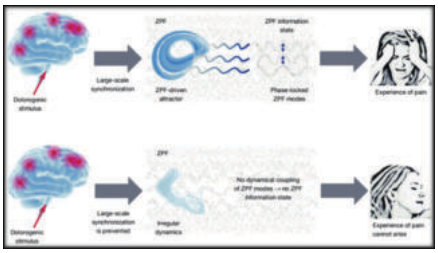
Stage 2 non-REM sleep is a period of light sleep before we enter into the deeper stage of sleep. The heartbeat and breathing slow, and muscles diminish even further. The body temperature drops and eye activities stop. Brain wave activity slackens but is marked by brief bursts of electrical bustle. We spend more of our recurrent sleep cycles in stage 2 sleep than in other sleep stages.

Stage 3 non-REM sleep is the period of unfathomable sleep that we need to feel reinvigorated in the morning. It occurs in extended periods during the first half of the night. Our heartbeat and breathing slow to their lowermost levels during sleep. Simultaneously muscles are relaxed and it may be difficult to awaken us. Brain waves become even slower.

REM sleep first occurs about 90 minutes after falling benumbed. Our eyes move summarily from side to side behind closed eyelids. Mixed regularity brain wave commotion becomes closer to that seen in wakefulness. The breathing pattern becomes faster and irregular, and our heart rate and blood pressure increase to near waking levels. Most of our fantasizing occurs during REM sleep, although some can also occur in non-REM sleep. Our arm and leg muscles developed temporarily paralyzed, which foils us from acting out our dreams. As age advances, we sleep less of our time in REM sleep. Memory consolidation most likely requires both non-REM and REM sleep.[10]

MECHANISM

Hypnotism



Throughout hypnosis, a proficient hypnotherapist persuades a state of powerful attentiveness or engrossed attention. This is a directed process with verbal cues and reiteration. The trance-like state the client enter may appear similar to sleep in many ways, but the individual fully not aware of what's going on around him or her. While the individual is in this trance-like state, the therapist will make guided suggestions designed to help the individual achieve the therapeutic goals. When the session is complete, the therapist will wake the client from the trance-like state, or we will exit it on our own. Hypnotherapy may also clear the way for deeper dispensation and receiving. In our regular mental state, if it's "cluttered," our mind may be unable to absorb suggestions and guidance,[11]

Sleeping

Two internal biological mechanisms–circadian rhythm and homeostasis–work together to regulate when we are awake and sleep. Circadian rhythms direct a wide variety of functions from daily oscillations in wakefulness to body temperature, metabolism, and the

release of hormones. They control our timing of sleep and cause us to be sleepy at night and our propensity to wake in the morning without an alarm. Our body's biological clock, which is grounded on a roughly 24-hour day, controls most circadian rhythms. Circadian rhythms synchronize with conservational cues (light, temperature) about the definite time of day, but they continue even in the nonappearance of cues.

Sleep-wake homeostasis retains track of our need for sleep. The homeostatic sleep drive prompts the body to sleep after a convinced time and normalizes sleep intensity. This sleep drive gets stronger every hour we are stirring and causes us to sleep longer and more deeply after a period of sleep deprivation.

Factors that influence sleep-wake needs include medical conditions, medications, stress, sleep environment, and what the individual eat and drink.Perhaps the highest influence is the exposure to light. Specialized cells in the retinas of our eyes progression light and tell the brain whether it is daytime or night-time and can advance or delay our sleep-wake cycle. Exposure to light can make insomnia and return to sleep when awakened. Night shift workers often have distress falling asleep when they go to bed, and also have distress staying awake at work because their natural circadian rhythm and sleep-wake cycle is interrupted. In the case of jet lag, circadian rhythms become out of sync with the time of day when people fly to a different time zone, creating a incongruity between their internal clock and the actual clock. [9]

CONCLUSION

Hypnotism is a very unique word and area in the field of psychiatry. Most of the persons having confusion in between hypnotism and sleeping. So, as an author, I tried to cover the related comparative information regarding Hypnotism and sleep in an elaborated way. I hope that the readers will have a clear concept regarding difference in between hypnotism and sleeping.

LIST OF ABBREVIATIONS

EEG- Electroencephalogram
PTSD- Post-traumatic stress disorder
REM- Rapid eye movement

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REFERENCE

1) Hypnotism-Elucidated Review - Paripex - Indian Journal Of Research [Internet]. [cited 2022 Apr 23]. Available from: https://www.worldwidejournals.com/paripex/fileview/hypnotismelucidated-review_March_2022_9692371104_5209747.pdf
2) Hypnotism | Encyclopedia.com [Internet]. [cited 2022 Apr 23]. Available from: https://www.encyclopedia.com/medicine/psychology/psychology-and-psychiatry/hypnotism
3) Brain Basics: Understanding Sleep | National Institute of Neurological Disorders and Stroke [Internet]. [cited 2022 Apr 23]. Available from: https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Understanding-Sleep
4) Hypnosis Can Increase Deep Sleep [Internet]. [cited 2022 Apr 23]. Available from: https://pzizz.com/blog/science/hypnosis-can-increase-deep-sleep/
5) What is Sleep Hypnosis? [Internet]. [cited 2022 Apr 23]. Available from: https://www.nolahmattress.com/blogs/blog/what-is-sleep-hypnosis
6) Barker W, Burgwin S. BRAIN WAVE PATTERNS DURING HYPNOSIS, HYPNOTIC SLEEP AND NORMAL SLEEP. Archives of Neurology & Psychiatry [Internet]. 1949 Oct 1 [cited 2022 Apr 23];62(4):412–20. Available from: https://jamanetwork.com/journals/archneurpsyc/fullarticle/650835
7) Dynes JB. OBJECTIVE METHOD FOR DISTINGUISHING SLEEP FROM THE HYPNOTIC TRANCE. Archives of Neurology & Psychiatry [Internet]. 1947 Jan 1 [cited 2022 Apr 23];57(1):84–93. Available from: https://jamanetwork.com/journals/archneurpsyc/fullarticle/650361
8) Hypnosis extends restorative slow-wave sleep, research shows -- ScienceDaily [Internet]. [cited 2022 Apr 23]. Available from: https://www.sciencedaily.com/releases/2014/06/140602101207.htm
9) Williamson A. What is hypnosis and how might it work?. Palliat Care. 2019;12:1178224219826581. Published 2019 Jan 31. doi:10.1177/1178224219826581
10) Brain Basics: Understanding Sleep | National Institute of Neurological Disorders and Stroke [Internet]. [cited 2022 Apr 24]. Available from: https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Understanding-Sleep
11) Morsella E, Godwin CA, Jantz TK, Krieger SC, Gazzaley A. Homing in on consciousness in the nervous system: An action-based synthesis. Behavioral and Brain Sciences. 2015 Jun 22;39.