

## **Effect of excessive Smartphone use on Students' Concentration, Attention & Quality of Sleep- A Review Study**

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### **Introduction**

Sleep is natural and you cannot get it by any other means like- with the help of any medicine, equipment, psychiatric counselling and soon. Of course, sleep is as important as our work and our diet. Many people believe that when we sleep, our brain also sleeps, it is very challenging to find the answer. But in reality, the mind never sleeps. Our mind is present in the area around the brain. At the time when we sleep, the thought process of the mind gradually stops. Due to which our daily activities stop, and important messages from the brain also stop and the brain becomes a little relaxed. After that we fall asleep but the brain continues to function to some extent. When we are sleeping, the brain slows down its external work. For this the brain goes through some phases Non-Rapid Eye Movement (NREM) and Rapid Eye (REM) completes its internal work and when awake it is ready with energy and enthusiasm to do a new task,

#### **➤ Mental concentration: -**

In present times mental concentration can also refer to the technique and power to manage our own mind so that it can work accordingly to fulfil the purpose of our life which is based on values,

According to Swami Vivekananda the difference between the highest and the lowest human being or in other words the successful person and the failure is nothing but a mere degree, concentration. "To me the essence of education is the concentration of the mind, not the collection of facts." (*Vivekananda, 1963; pp.38-39*)

#### **There are three aspects of mental concentration**

- i) intense focus on a particular thing,
- ii) Blocking out all distractions,

iii) Possessing the power of concentration for extended periods,

➤ **Attention: -**

Attention is very important in human life. It is a necessary condition for the implementation of any activity. It is the attention that completely executes all our mental processes; only attention allows us to perceive the world around us. It can also tell a lot about the general structure of personality, a person's social orientation. Attention is one of the important conditions for the successful implementation of all types of human activities and their effectiveness (*Ismatillayeva, et.al.,2023*)

➤ **Effect of excessive smartphone use on students' Sleep: -**

Proper sleep is especially important for children and students. Sleep deprivation is becoming a significant health issue among adolescents worldwide. There can be many factors that affect sleep hygiene but the role of excessive mobile usage in causing sleep problems in adolescence has attracted a lot of attention in the last few years. A recent review (Sohn et al) reported that one in four children and youth suffer from excessive cell phone use which can lead to depression, anxiety and decreased sleep quality. A recent metanalysis study by (Carter et al) showed that excessive mobile phone use at bedtime was negatively associated with poor sleep quality and excessive daytime sleepiness, among other problems due to the technology revolution. , most mobile phone users now have smartphones that enable them to access the Internet and social networks, such as video, online chatting and playing games. This results in exposure to stimulating material, mobile phone overuse and phone addiction contributing to hyper arousal thus affecting the duration and quality of sleep before bedtime,

➤ **Physical and mental diseases related to sleep caused by excessive smartphone use:**

**Physical diseases** - When we do not get enough sleep, our nature becomes irritable, sad and pessimistic. In addition, not getting enough sleep also affects performance and productivity. Inadequate sleep can impair energy, enthusiasm and concentration. Lack of sleep can lead to obesity, high blood pressure, diabetes, eye disorders, indigestion and piles.

**mental illness**

Adequate sleep is very important for emotional stability and for better decision making, once our sleep is disturbed then there is a problem in adjusting with the daily routine which also affects our concentration and we are unable to do our daily activities. Unable to accomplish, eventually used to get irritated on small things the environment around them who remain disturbed in the office as well as at home. When we are mentally exhausted due to sleep disturbance. This process gradually affects our thoughts and can lead to many mental illness like anxiety, stress problem and gradually it will turn into depression.

**➤ Effects of Smartphone Addiction on the Behaviours of youth: -**

Smartphones nowadays have many benefits, which have led to excessive use, which leads users to addiction in the form of overuse. A literature review showed that being active on social media frequently and maintaining more relationships with smartphones throughout the day Doing daily activities leads to smartphone addiction. Effects of Smartphone Addiction Previous studies have shown that excessive use has negative effects. Previous studies also showed that smartphone addiction is more common among youth, especially among students. Several negative psychological effects were listed, that smartphone addiction is leading to disrupted sleep, sleep which in turn can affect memory and memory which can affect functioning resulting in mental disorders and Poor academic performance especially among young people. Mood changes associated with smartphone addiction This means that higher use is more likely to make users addicted to smartphones, found an older literature review study of 341 participants selected using stratified random sampling 341 289 (85%) of the participants lived with their families, yet participants indicated a response "I prefer using my smartphone more than doing any other activities". Respondents' results showed that smart phone addiction had the most negative impact on mood disorder, followed by poor or negative effects on social relationships, family relationships, academic performance and then health,

**According to Ozkan & Solmaz (2015):** - Mobile phone is one of the most preferred digital devices especially in becoming a big part of our daily life. With the technological innovations for this it has become more common to use mobile phones in today's generation. Creating a new and different social environment with sharing of personal life in social websites like - Facebook, Twitter, Instagram etc have reached a level which is closer to their social life than real life. It is believed that the use of smart phones has become an addiction especially in

these generations and this condition is believed to have a great impact on their social life and psychology. The importance of factors influencing dependency and whether it has an effect on the social life of generations was assessed by creating a new scale and using various scales in the literature.

The research was conducted with university students aged 18-23 which included a sample of 276 individuals. And it was found that the students who used moresmart phone, it had a lot of impact on their mental state and social life.

### ➤ **Problems in Concentrating in Classes due to excessive use of Smartphones: -**

Attention is accepted as an important cognitive function. Attention is a cognitive function that allows individuals to encode and store information. Attention has also been described as awareness, attention, understanding, and consciousness, as in previous studies. clarified that excessive smartphone use affects sleep (*Robinson 2003*) in his research that distraction in class or when students feel tired, lose sleep, become mentally weak so that they Not able to stay alert or have attention deficit in their class Technology has a significant impact on our lives; It has given us both convenience and challenges that we could not even imagine. In particular, multifunctional smartphones, despite being only small gadgets in size, have literally put the world in front of us, although smartphones are being used as educational tools today, with students being highly active on social media and playing sports. Used to play, send messages, which is distracting their learning talents Researchers claim that the existence of smart phones has reduced the attention span of students in the classroom (*Qiao, et, al, 2023*)

### ➤ **Objective: -**

- Understanding the concept of sleep.
- Understanding the causes of little or insufficient sleep.
- Understanding the physical and mental symptoms affected by smartphone addiction.
- Determining the biggest contributing factors to insomnia.
- Understanding the concept of concentration.
- Analysing mobile addiction.

- Today's generation and how this addiction affects their social and personal life.

### ➤ **Conclusion: -**

The study concluded that continuous use of mobile screen for 8 out of 24 hours and only after turning off the lights 30 minutes before bedtime and keeping the mobile near the pillow was positively associated with poor sleep quality. Insomnia not only lowers our energy level but also changes behaviours which affects the surrounding environment, social interaction, health and quality of life. In short, sleep is as important as work and diet. Need to understand its effect physically and mentally if it is insufficient or less. If you do not get good sleep at night then it becomes difficult to keep your life easy, simple, more comfortable. Due to excessive use of smartphone at night this problem May result in daytime sleepiness, sleep disturbances and increased sleep latency. In the study of previous research review, it was found that if sleep is not completed properly, then along with energy, the quality of life, ability to work and our health are also affected. There can be many reasons for insufficient sleep, but nowadays especially in students, Smartphone is the main reason for this, students depend more on smartphones than books and libraries for their educational activities, which has a direct effect on concentration and sleep, for which it is very important to make them aware of the benefits of smartphones as well as their disadvantages. Should also know, as well as have knowledge of the limit time.

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