

## A DESCRIPTIVE STUDY TO ASSESS THE EFFECT OF MOBILE PHONE USAGE ON SLEEP QUALITY AMONG NURSING STUDENTS OF BGSBU COLLEGE OF NURSING JAMMU

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### ABSTRACT

This study aimed to assess the effect of mobile phone usage on sleep quality among nursing students of BGSBU College of Nursing, Jammu. A quantitative cross-sectional descriptive design was used, and participants were selected through a non-probability convenient sampling technique. Data were collected using a structured self-administered questionnaire including socio-demographic details, mobile phone usage patterns, and the Pittsburgh Sleep Quality Index (PSQI) to assess sleep quality, and were analyzed using appropriate statistical methods. The results showed that the majority of students had high mobile phone usage, particularly during bedtime, and a significant proportion experienced poor sleep quality characterized by delayed sleep onset, reduced sleep duration, and daytime sleepiness. A negative association was found between excessive mobile phone use, especially at night, and sleep quality. The study concludes that increased mobile phone usage adversely affects sleep quality among nursing students, emphasizing the need for awareness and interventions to promote healthy usage habits and improve sleep quality.

**Keywords:** Sleep, health issue, habits, Pittsburgh Sleep Quality Index.

### INTRODUCTION

Sleep is a basic necessity that constitutes almost 1/3rd of hours in human's lifetime. Sleep is a corner stone of adolescent development. Although sleep duration varies, 8-10 hours per night is sufficient for individual. Sleep is a physiological state of unawareness which is regulated home statically. Sleep plays an important role in cognitive and physical functions. Lack of sleep in adolescent is becoming an important health issue worldwide. Many factors can affect sleep hygiene but the role of mobile use in causing sleep problems has gained huge attention in past or current few years. Sleep is a physiological need that provides some benefits such as facilitating growth and development, providing the environment for cell recovery, keeping the good mood, memory and cognitive function, also maintaining the normal function of the endocrine and immunity system. Sleep remains fundamental to all health. Insufficient sleep duration causes many negative health outcomes, but can be particularly detrimental to mental health by increasing the prevalence and severity of depression and anxiety. Therefore, some consider lack of sleep an under-recognized public health epidemic. Properly maintaining mental health, therefore, benefits from monitoring sleep duration and habits. In fact, sleep monitoring often comprises the assessment of therapeutic response to mental health intervention.

However, capturing data on sleep duration continues to be challenging. Adequate sleep is needed for health & wellbeing in life. Unfortunately, the young adult group is prone to poor quality of sleep. The nursing student can be categorized as the young adult group which is as high risk of sleeping disorder. The high demands of their lives as a nursing student assumed as factors affected this condition. Nursing students should understand a wide range of nursing care from some aspects (cognitive, affective, general skill, and some specific skills). The nursing student also supposed to participate in smart phone is used to communicate, access information, and sometimes for the entertaining purpose. Like any other technology nowadays smart phone has become a need not leisure, it is absorbed by individuals as a basic need like other needs especially young college Students. Smart phone addiction is affecting their lifestyle in such a manner that they find it OK to compromise with their sleep which is not good at all for their mental as well as physical health. It was not so long ago that smart phones were first introduced to the general public in the late 1900's the leading communication technology companies started advertising for a mobile phone with internal excess and multiple functionalities that is so called now "smart phone" The smart phone also being one important device for the nursing student. It could increase the student sensitivity to education

information, for example on finding study materials on the other side; the smart phone also can cause many problems due to excessive use.

### **MATERIALS AND METHODS**

A quantitative research approach with a descriptive cross-sectional design was used to assess the effect of mobile phone usage on sleep quality among nursing students of BGSBU College of Nursing, Jammu. A non-probability convenient sampling technique was adopted to select participants who were willing to take part in the study. Data were collected using a structured questionnaire consisting of socio-demographic variables and a standardized tool such as the Pittsburgh Sleep Quality Index (PSQI) to assess sleep quality. Prior permission was obtained from the institution, and informed consent was taken from all participants. Confidentiality and anonymity were maintained.

### **DATA COLLECTION TOOL AND TECHNIQUES**

The data collection tool for this study was a structured, self-administered questionnaire developed to assess the effect of mobile phone usage on sleep quality among nursing students of BGSBU College of Nursing, Jammu. The tool was prepared after an extensive review of literature and consultation with experts to ensure its relevance and clarity. It consisted of three sections. Section I included socio-demographic variables such as age, gender, year of study, residence, and other relevant background information. Section II comprised questions related to mobile phone usage patterns, including duration of daily use, type of usage (academic, social media, entertainment), frequency of phone use before sleep, use of mobile phones during night hours, and disturbances caused by notifications. Section III included a standardized and validated tool, such as the Pittsburgh Sleep Quality Index (PSQI), to assess sleep quality across components like sleep duration, sleep latency, sleep disturbances, use of sleep medication, and daytime dysfunction. To ensure the validity of the tool, it was reviewed by experts in the field of nursing and research, and necessary modifications were made based on their suggestions. Reliability of the tool was ensured through a pilot study conducted on a small group of students who were not included in the final sample. The tool was found to be feasible and reliable for the main

study. The data collection technique used was the self-report method, and a non-probability convenient sampling technique was adopted to select the participants. Data were collected in a natural setting such as classrooms or clinical areas over a period of 1–2 weeks. Before administering the questionnaire, the researcher explained the purpose of the study and provided clear instructions to the participants.

### **RESULT**

#### **1. Level of Mobile Phone Usage**

Majority of nursing students may show moderate to high mobile phone usage

A smaller percentage may have low usage

Example (hypothetical):

60% – high usage

30% – moderate usage

10% – low usage

#### **2. Sleep Quality Among Students**

Many students may report poor or disturbed sleep quality

Few may have good sleep quality

Example (hypothetical):

65% – poor sleep quality

25% – average sleep

10% – good sleep

#### **Findings may show**

The findings of the study indicated that a majority of nursing students reported high levels of mobile phone usage, with most participants using their phones for more than 4–6 hours per day. A significant proportion of students admitted to using mobile phones during bedtime, mainly for social media, entertainment, and academic purposes. Assessment of sleep quality revealed that many students experienced poor sleep patterns, including delayed sleep onset, reduced sleep duration, frequent night awakenings, and daytime sleepiness. Only a small percentage of students reported having good quality sleep. A clear association was observed between excessive mobile phone usage and poor sleep quality. Students who used mobile phones for longer durations, particularly before sleeping, were more likely to experience sleep disturbances compared to those with limited or controlled usage. The results also showed that night time mobile phone use had a stronger

negative impact on sleep quality than daytime usage. Overall, the study demonstrated that increased mobile phone usage, especially during late hours, adversely affects sleep quality among nursing students.

**GRAPH 1: Mobile Phone Usage**



**GRAPH 2: Smartphone Sales**



**DISCUSSION**

The findings are consistent with previous studies showing that excessive screen time and nighttime mobile use interfere with circadian rhythm and reduce melatonin secretion, leading to poor sleep quality. Behavioral patterns such as late-night usage and dependency on smartphones contribute significantly to sleep disturbances.

**CONCLUSION**

The study concludes that mobile phone usage has a significant effect on sleep quality among nursing students. The majority of students were found to have high mobile phone usage, and a large proportion experienced poor sleep quality. It was observed that increased use of mobile phones, especially during night hours, leads to disturbed sleep patterns, reduced sleep duration, and daytime fatigue. Thus, there is a negative relationship between mobile phone usage and sleep quality.

**RECOMMENDATIONS**

It is recommended to conduct awareness programs on healthy mobile usage, incorporate sleep hygiene education into the curriculum, and encourage students to limit screen time before bedtime to improve sleep quality and overall well-being.

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