

Enhancing Sleep Knowledge Among IT Professionals: The Impact of Educational Interventions on Sleep Hygiene - A Study from Selected IT Companies, Hyderabad

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Abstract: Sleep is crucial for normal development and daily functioning. Sleep problems can lead to significant issues, including depressive symptoms, behavioral problems, impaired neuro behavioral functioning, and sleep loss due to voluntary bedtimes. 'Sleep hygiene' refers to healthy habits, behaviors, and environmental factors that can be adjusted to promote better sleep during night times. Studies in India reveal that IT professionals, especially those working night shifts, often experience poor sleep quality and daytime sleepiness, with factors like long work hours and screen time significantly impacting sleep hygiene. Some sleeping problems are often caused by bad sleep habits reinforced over years or even decades curtailment has become hallmark of modern life, owing to their hectic schedules. Sleep deprivation in leads to impaired mood, judgment, ability to learn and maintain information. Moreover, it is related to different health problems including cardiovascular disease, obesity, diabetes, metabolic syndrome, and increased mortality. In today's fast -paced world, though, a good night's sleep is often the first thing to go. The effects of inadequate sleep are more than mere annoyances: they affect our mood and how we perform at work, and home and behind the wheel. Lost sleep also accumulates over time; the more "sleep debt" an individual incurs, the greater the negative Consequences. The ineffectiveness of sleep hygiene as a treatment in clinical sleep medicine has raised some interesting questions. If it is known that, individually, each specific component of sleep hygiene is related to sleep, why wouldn't addressing multiple individual components (i.e., sleep hygiene education) result in improved sleep.

Keywords: Sleep Hygiene, Quality sleep, sleep problems, Structured teaching, knowledge level , I T professionals, I T companies.

1. Background and Need of the Study

Though the utility of sleep hygiene education may be limited in clinical settings, there are several reasons to consider its potential to improve sleep and promote health in the general population. In addition to being commonly used and readily available, sleep hygiene education does not require the direct involvement of a clinician and therefore can be widely disseminated to individuals not likely to seek medical treatment for their sleep problems. As a relatively inexpensive lifestyle intervention, sleep hygiene education could serve as a first-line intervention in a stepped-care model for adults who want to improve their sleep but are not likely to qualify for, or seek, more substantial clinical treatment. Sleep hygiene recommendations may be delivered via a variety of media (e.g., print- or internet-based), resulting in increased access.¹³ In addition, sleep hygiene education may be a more appealing and intuitive option for the general population. For example, examination of a tailored sleep improvement plan in cancer patients revealed that when developing their individual plan, participants preferred sleep hygiene strategies over stimulus control or sleep restriction. Moreover, adherence to the sleep hygiene component was relatively high and increased over time (68-78%) compared to the other treatment components. However, it is important to note that individuals with un diagnosed or untreated sleep disorders may engage in poor sleep hygiene behaviors in an attempt to

cope with their poor sleep (e.g., caffeine or alcohol use), and continued efforts should be made to identify these individuals and refer them for more appropriate treatments.

Objectives

- Assess the levels of knowledge regarding Sleep Hygiene among males in Selected IT Company by pretest.
- Determine the effectiveness of structured teaching programme on knowledge regarding Sleep Hygiene among males in Selected IT Company by post -test.
- Find the association between post test regarding sleep hygiene among males with selected demographic variables.

Hypothesis

- **H1:** there will be difference between pre-test & post-test knowledge score of IT company males regarding Sleep Hygiene.
- **H2:** There will be association between knowledge scores of IT company regarding Sleep Hygiene with selected demographic variables.

2. Methodology

Quasi experimental, pre test post test design was used to assess sleep hygiene knowledge and sleep issues from I T professionals from selected IT companies at Hyderabad - Cyberabad district.

The data were collected from 60 males between the age of 35 to 50 yrs working in selected IT Company at Hyderabad.

The research approach used for the present study is Quantitative Research Approach.

The research design adapted for the present study is the pre – experimental “One group Pre-test and

Post test design”. This design provides a comparison between a group of subjects before and after the experimental treatment.

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The symbolic representation of design is: Group	Pre-test	Intervention	Post-test
IT employees	O1	X	O2

Variables:

Independent variable: Structured teaching programme on knowledge regarding Sleep Hygiene.

Dependent variable: Knowledge gain regarding sleep hygiene among

Tool used for the study includes structured knowledge questionnaire on sleep hygiene.

Setting of the Study

The setting of the present study was conducting in selected IT companies

Population

The target population for the present study was IT employees working in selected technological companies

Sample and Sampling techniques

In the present study the sample consists of males working in IT company Hyderabad.

Sampling technique refers to the process of selecting a portion of the population to represent the entire population. In the present study is non – probability convenient sampling technique is used to select the sample. It is selected based on sample selection criteria.

Sample Size

Sample size is the number of people who participate in a study. The sample size consists of 60 males in Selected IT Company, Hyderabad.

Criteria For Sample Selection

Inclusive criteria

- IT Company people
- Adolescent age group - 35-50 Years males

Exclusive criteria

- Adolescent
- Age group - 35-50 Years Females

Method of Data Collection

In this study, the data will be collected with the help of structured questionnaire.

Description of the Tool

A structured questionnaire is prepared to assess the knowledge of IT company males. The questionnaire of the present study consists of two parts.

- **Part- A:** It consists of demographic data of the IT company males. i.e, age, religion, type of family, education, occupation, and income etc.
- **Part- B:** It consists of 30 questionnaires with the total knowledge assessment regarding Sleep Hygiene.

Data Collection Procedure

- **Phase- 1:** The data will be collected by pre-test, the investigator gives self-introduction, explain the purpose of the study and the subjects, willingness to participate in the study. The subjects will be assured anonymity and confidentiality of information provided by them and a written informed consent will be obtained.
- **Phase- 2:** The structured teaching programme will be administered at the end of the pre-test.
- **Phase- 3:** The post-test will be carried out seven days later using the
- age group - 35-50 Years Females

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Development of the Tool

A search of literature was made for the purpose of developing appropriate tool for assessing knowledge regarding sleep hygiene among IT employees. An instrument in the form of structured knowledge questionnaire was developed with the help of selected literature from various textbooks and journals and discussion with experts in the field of Medical Surgical Nursing.

Description of the Tool

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- **Part- A:** It consists of demographic data of IT employees i.e., Age in years, Education, Religion, Marital status, working status, type of family, type of food habits, income, time to sleep, bed at the same time, watching tv or listening music
- **Part- B:** structured knowledge questionnaire consists of 30 questionnaires with the total knowledge regarding sleep hygiene among IT employees.

Development of Structured Teaching Programme

The structured teaching programme was aimed in improving the knowledge regarding sleep hygiene among IT employees. The structured teaching programme was drafted based on review of literature and in consultation with experts. The content includes about in introduction, definition, practices of good sleep hygiene, signs poor sleep hygiene.

Scoring & Interpretation: There were four choices, out of which one was correct answer and the remaining three were wrong answers. Thus, there were 30 maximum obtainable scores. The level of knowledge was graded based on percentage of scores obtained level of knowledge adequate (Above 75%) Moderate (51-74%) Inadequate (Below 50%).

Scoring key prepared for Section- A by coding the demographic variables. Section –B were multiple choice question with 4 options. Each correct was given as a score of one and the wrong answer was given as a score of zero.

The resulting score was interpreted as follows:

- 0 – 10 = Inadequate knowledge
- 11 – 20 = Moderately adequate knowledge
- 21 – 30 = Adequate knowledge

VALIDITY OF THE TOOL:

Validity refers to what extent an instrument is supposed There were four choices, out of which one was correct answer and the remaining three were wrong answers. Thus, there were 30 maximum obtainable scores. The level of knowledge was graded based on percentage of scores obtained level of knowledge adequate (Above 75%) Moderate (51-74%) Inadequate (Below 50%).

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The purpose of the study was to assess the effectiveness of structured teaching programme on knowledge regarding sleep hygiene among IT employees The procedure was explained confidently, and consent was obtained from the samples. Pre-test was conducted by demographic variables

and after one week the post-test was conducted to assess the effectiveness of structured teaching programme on knowledge regarding sleep hygiene.

Plan For Data Analysis

The data obtained will be analyzed using descriptive and inferential statistics Major findings of the study:

- 1) Majority of the subjects belongs to middle aged between 25 to 35 yrs of age group
- 2) Most of the subject 60.7% were married and 14.5% were single and divorced.
- 3) More or less all are in 3 shift duties, equally getting night shifts in a month
- 4) Majority 83.5% of them were from nuclear family system
- 5) Food habits only 10% were vegetarians and remaining of them were with mixed food habits.
- 6) 91% of them fall above 6 lakhs per annual income group
- 7) Majority of the subjects more than 45% states they fell asleep after 1 hour of there entry to the bed.
- 8) Majority of them were listening to music before sleep
- 9) the comparison of pre-test and post-test knowledge scores of the IT

Employees regarding Sleep Hygiene. In pre test shows that 95% of the IT Employees were performing at below average and 5.0% of the IT Employees were performing average levels none of the IT Employees were performing above average level before administering Structured teaching programme. After the Structured teaching programme there were 1.7% of the IT Employees were performing at below average and 5.0% of the IT Employees performing average levels, 93.3% of the IT Employees were performing above average level.

- 1) Pre test post test knowledge scores on sleep hygiene shows significance increase in the post test knowledge score with mean difference 16.8.
- 2) Pretest knowledge scores with selected demographic variables depicts there were no significant relationship with most of the variables except the family type, income and bedtime rituals like listening to music and watching videos shows association with sleep disturbances.
- 3) The obtained t value was 13.06 at significant level of 0.005, which represented that structured teaching programme was effective in terms of increased knowledge level of I T professionals in the sleep hygiene.

3. Conclusion

Poor sleep quality, often resulting from poor sleep hygiene, is common among I T professionals. Educational interventions aimed at improving sleep knowledge are beneficial for sleep quality in healthy populations. There is a high prevalence of sleep disorders among computer professionals. Interventions like monitoring the daily duration of screen exposure and total daily work hours and periodic evaluation of the sleep health of computer professionals are crucial to reducing morbidity and early mortality.

4. Recommendation

Sleep knowledge was inadequate among I T professionals, who also experienced poor sleep quality. A short educational intervention improved sleep knowledge but was insufficient at improving sleep quality. Further studies are needed to determine which interventions may provide benefit in both sleep knowledge and sleep quality

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