

Impact of Raga Darbari Kanada on Insomnia in High School Students: A Study

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Abstract

Introduction and Purpose: The classical Hindustani Raga Darbari Kanada is considered a remedy for insomnia. The present study was conducted to see the impact of Raga Darbari Kanada on insomnia in high school students.



Materials and Methods: The following study was carried out on 100 students of age 16-18 years old. These students were asked to complete the Pittsburgh Sleep Quality Index and then asked to listen to the Raga Darbari Kanada (instrumental) for 10 minutes before bedtime for 3 consecutive weeks.

Results: The results can be confirmed with certainty that insomnia was significantly reduced after exposure to Raga Darbari Kanada.

Conclusion: The study results were positive because the participants' insomnia levels decreased after the intervention of music therapy. The results might be better if the same study was conducted over a longer period of time with a larger population.

Keywords: Insomnia, Student, Raga Darbari Kanada, Pittsburgh Sleep Quality Index, Music Therapy

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Introduction:

Sleep

Sleep is a very important part of an organism's life, in which one feels relaxed, not sluggish and free of stress. It is a state of consciousness that gradually leads to the subconscious. Sleep begins with NREM (non-rapid eye movement) sleep period in healthy college students⁴. After a few moments of NREM sleep, REM (rapid eye movement) sleep

takes place⁴. This alteration between NREM and REM occurs about four or five times during a normal night's sleep⁴.

Insomnia

Insomnia is the most common and disturbing sleep disorder. Smith mentioned that “your age, genetics, occupation, stress, diet and lifestyle can all be potential causes of insomnia. In many cases, there can be multiple influencing factors”⁸ (2022). Old age brings many discomforts in people's lives such as depression, anxiety, and insecurity leading to insomnia and this disease can also be inherited. A person's hectic lifestyle, whether related to work or housework, can decrease the quality of their sleep and increase their stress levels, leading to insomnia.

Music

Music is a type of source that expresses the feelings, emotions and thoughts of a person or a group. Music has three aspects: singing, playing an instrument and dancing. So, if we talk about the singing part of music, it includes many interesting things, like ragas, *alankaras*, bhajans, songs, etc. There are four Vedas in the entire Rig Veda, Yajur Veda, Sama Veda, and Atharva Veda. Among the four Vedas, the Sama Veda is considered the source of Indian music. During the Vedic period, people occasionally sang prayers during religious ceremonies because music was considered pure and divine knowledge as mentioned in Indian textbooks such as Vedas, Upanishads, etc. religious ceremonies and social occasions. Since the rich or Vedic mantras are considered invigorating, powerful, and divine, they are chanted in various yajnas using different procedures. For Yajnas and religious ceremonies, Brahman is specifically trained in music. This formation is passed from father to son, from Guru to Shishya, or to the disciples of a Gurukul in a group. There are also ragas in Hindustani music, like Yaman, Rageshri, Bhairvi, Darbari Kanada, etc. Darbari Kanada is considered the most useful Raga to treat insomnia. “Raga Darbari Kanada helped Sangita Das (21) wake up from a coma after nearly 25 days. Fainting from the University of Naihati was released on Thursday”¹¹ (Yengkhom, 2018).

Objective: This study aimed to investigate the effects of Raga Darbari Kanada on insomnia in high school students.

Literature Review:

Dickson and Schubert (2020) researched the impact of music on sleep quality¹. In this study, both authors used various other measures like control, audiobooks, and meditation and thus concluded that music intervention may be most effective for individuals suffering from mild sleep problems¹.

Nayak et al., (2020) researched that Indian classical music is an effective measure to deal with bad sleep quality and memory⁷. In this study, the author took the help of various Indian classical microtones and concluded that sleep quality and memory improve with music therapy⁷.

Firdaus et al., (2020) researched that music therapy is an effective measure to enhance the quality of sleep of various populations in Indonesia³. The author concluded that music therapy can be used to treat sleep problems³.

Truong et al., (2020) conducted an EEG based study to see the impact of music on sleep quality improvement¹⁰. Based on the above research, the author concluded that listening to music before nap time can improve sleep latency in some participants¹⁰.

Dickson and Schubert (2020) researched that different musical features may act as an aid to sleep problems². As a result of the above research, the author concluded musical features are an effective aid to different sleep problems².

Materials and Methods:

(i) Research Design:

The present study was quantitative in nature. This was a cross-sectional study consisting of measurements taken before and after an intervention in one group to determine changes that occurred after the intervention, without using a control group.

(ii) Participants:

A total of 100 high school students of the age group 16-18 years from R.D. Senior Secondary School, Digboi, Assam were randomly selected for a 3-week music therapy intervention. Afterward, with permission from the Institutional ethics committee, signed informed consent forms were obtained from the participants and the study was initiated.

(iii) Tool for Data Collection:

Pittsburgh Sleep Quality Index: The Pittsburgh Sleep Quality Index (PSQI) is a questionnaire to assess a variety of sleep-related problems in individuals. Developed in 1989 by researchers at the University of Pittsburgh. Contains 20 questions about sleep quantity and quality. “The test is scored based on a scoring system that assigns a specific number of points to each answer”⁵ (Moawad, 2021).

(iv) Music Therapy Intervention:

Raga Darbari Kanada is a midnight Indian carnatic raga and was introduced by Miyan Tansen before Emperor Akbar⁶. An instrumental version of this raga was given to the participant and were directed to hear it once every day 10 minutes before going to bed.

(v) Procedure of Data Collection:

The pre-test data of the participants were collected one week before starting the therapy using the Pittsburgh Sleep Quality Index along with the demographic data. The post-test data were collected after the completion of the 3 weeks of music therapy using the same scale.

(vi) Data Analysis:

After the observations were obtained, results were generated by comparing mean differences between pre-and post-music interventions using dependent/paired sample t-tests.

Result:

Table 1.0

<u>Variable</u>	<u>Pre-test</u>		<u>Post-test</u>	
	Mean	SD	Mean	SD
Insomnia	39.5	2.12	36	4.24

Table 1 shows, the mean, SD, and dependent sample t-test for pre-test scores and post-test scores of the participants' insomnia. The dependent sample t-test indicates a significant difference in the insomnia score between pre and post-test scores i.e., 3.87, $p < 0.001$. The mean scores and t value indicates that Raga Darbari Kanada has a positive impact on improving the sleep quality of the participants by curing insomnia.

Discussion:

Insomnia is a very common problem these days, especially among students. Raga Darbari Kanada is said to be able to cure insomnia, but there is little data to confirm the same⁶, so this study was initiated. The results obtained using the before and after test scores are satisfactory enough to conclude that Raga Darbari Kanada helps to relax the brain and thus promotes good sleep by curing insomnia. Melatonin, a hormone secreted by the pineal gland is responsible for regulating circadian rhythms. Tordjman mentioned in his study that disrupted circadian rhythms lead to sleep disorders such as insomnia⁹. Based on the above statement, we can say that after the music therapy intervention, the participants' circadian rhythms and melatonin levels increased and their insomnia level decreased, which represents a great deal evident in the test data.

Conclusion:

Application: Insomnia is a major threat in today's society. And to deal with it, people are suggested to take various man-made drugs which lead to an individual experiencing various side effects including many unwanted addictions and Raga Darbari Kanada works as a solution. There are absolutely no side effects to this alternative. In particular, for students, this is the optimal solution to help them stay away from high-dose drugs from a young age, and at the same time protect them from many other diseases caused by heavy drug addiction.

Limitations and Scope: In the present study, participants' exposure to raga lasted very short and the sample size was also small. Therefore, further studies will be needed to examine

the effect of raga therapy in larger populations, over a longer period of time, in order to better generalize.

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