

Effectiveness of Structured Psycho-Education Intervention on Sleep Hygiene & Sleep Disorders in Under Graduate University Students

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ABSTRACT

Background- Sleep plays an important role in maintaining good Physical and mental health throughout the life. Timely and adequate sleep will improve quality of life, protect mental and physical health. The present study was conducted to evaluate the effectiveness of structured Psycho education intervention regarding sleep hygiene and sleep disorders on knowledge of under graduate university students at Amity University Gwalior. **Methodology-** A pre-experimental study was conducted with 50 Pre-undergraduate students; samples were selected using simple random sampling technique, and the data was collected using structured socio-demographic Performa and knowledge questionnaire on sleep hygiene and sleep disorders. Structured counseling on sleep hygiene and sleep disorders was given on the same day. Post-test was conducted after ten days. **Results-** There was a statistically significant difference in pre-and post-test knowledge scores ($t=8.25$, $p < 0.05$) of undergraduate university students with respect to sleep hygiene and sleep disorders. **Conclusion** -Findings conclude that structured Psycho education programme regarding sleep hygiene and sleep disorders was effective in increasing knowledge among pre-university students.

Keywords: *Sleep hygiene, Sleep Disorders Quality of Life, Environmental factors*

Sleep is a vital component of health. It is essential for mental and physical well being and is crucial for rejuvenation of the body. Impaired sleep quality can result in harmful effects on mental and physical well being. Impaired or disrupted sleep has been shown to cause poor concentration, reduced energy levels, altered immune function, poor wound healing, mood changes (increased impatience and irritability), increased risk of depression or anxiety, and a higher occurrence of accidents and falls (Lee, 2003; Hill, Cumming, Lewis, Carrington & Couteur, 2007).

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Received: January 13, 2017; Revision Received: February 4, 2017; Accepted: February 7, 2017

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Globally, sleep problems are common among adolescents. Studies have shown that adolescents who had adequate sleep performed better on memory and motor activities compared to adolescents who had deprived sleep. There are data that lack of sleep leads to learning and memory impairment as well as decreased attention and watchfulness. Among adolescents factors like self-reported shortened sleep time, erratic sleep/wake schedules, late bed and rise times, poor quality sleep were found to be negatively associated with performance. Recent studies show that college students were found to be sleep deprived. Background of the problem Meta-analysis was conducted on 41 studies regarding sleep pattern estimation among adolescents; study results showed that 53% of study subjects reported sleep duration less than eight hours, and most of the studies showed that bedtimes were later than what was necessary for sufficient sleep. The finding also showed that existence of a worldwide delayed sleep-wake behaviour pattern was consistent with symptoms of delayed sleep phase. Most of the students are unaware of the negative consequences of sleep deprivation on psychological wellbeing, and on academic performance.

Sleep hygiene practices can comprise behavioral and environmental factors. Behaviors conducive to sleep include regular exercise, regular bed times and arising times, and no daytime napping. (Brown, Buboltz & Soper, 2006; Maston, et al., 2006).

Behaviors not conducive to sleep are use of stimulants such as caffeine or tobacco, engaging in exciting or emotionally upsetting activities prior to bed time and the use of alcohol (Brown, et al., 2006; Maston, et al., 2006). Sleep hygiene practices also include environmental factors conducive to sleep. Environmental factors include a mattress and pillow that are comfortable as well as sleeping in an environment that has the proper darkness, sound and temperature levels based on a persons' individual to comfort level.

Aim

The present study was conducted with an aim to find out the effectiveness of structured psycho education intervention regarding sleep hygiene and sleep disorders on improving knowledge among undergraduate university students.

RESEARCH METHODOLOGY

Research design

A pre-experimental design was adopted and 50 undergraduate university students participated in the study. The fifty undergraduate university students selected by using simple random sampling technique. Students who were absent and suffering with any chronic medical or psychiatric illness (assessed by verifying attendance register and by asking general questions on sleep, appetite, activity level, health complaints) were excluded from the study. Informed consent was

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obtained from students before proceeding with the study. The participants were informed about assessments, intervention, and their roles.

Data collection procedure

Participants were selected based on the set inclusion and exclusion criteria. The pre-test was administered to 50 undergraduate university students regarding knowledge on sleep hygiene and sleep disorders by using structured knowledge questionnaire. Respondents took 30 minutes to complete the structured knowledge questionnaire. After pre-test, subjects were given structured teaching programme on sleep hygiene and sleep disorders on the same day for 60 minutes by using lecture and group discussion method. The structured Psycho education intervention included and topics on physiological changes during sleep, age, and recommendation amount of sleep, importance of sleep, sleep hygiene tips, sleep disorders and its management. Post-test was conducted after ten days.

Instrument

Socio Demographic and clinical data sheet: - information regarding name, age, sex, occupation, marital status and income was obtained.

The Sleep Hygiene Index (SHI):- is a self-rated 13 item instrument which assesses sleep hygiene behaviors. These 13 items were derived from combining information obtained from sleep hygiene studies along with the diagnostic criteria defined in the International Classification of Sleep Disorders for the diagnosis of inadequate sleep hygiene (Mastin, et al., 2006). Participants are required to indicate how frequently they engage in specific behaviors and indicate the frequency: always, frequently, sometimes, rarely, or never. Each item is then coded with scores ranging from 5 (always) to 1 (never). The items are totaled yielding a global assessment score for sleep hygiene ranging from 13 to 65. Higher scores are indicative of more maladaptive sleep hygiene practices.

Data analysis

The collected data were analyzed using descriptive and inferential statistics. Frequencies and percentages were used to analyze the socio-demographic characteristics.

RESULTS

Table 1.a. Socio-demographic Details of the Study Sample

S. No.	Characteristic	Total Sample (n = 50)	Percentage
1.	Age		
	16-18 years	20	40%
	18-20 years	18	36%
	20-22 years	12	24%

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S. No.	Characteristic	Total Sample (n = 50)	Percentage
2.	Gender		
	Male	28	56%
	Female	22	44%
3.	Socio-economic Status		
	Lower	-	-
	Middle	15	30%
	Upper	35	70%
4.	Residence		
	Rural	02	04%
	Semi-urban	10	20%
	Urban	38	76%

It is clear from Table 1.a. which gives descriptive information about the socio-demographic characteristics of entire sample. The percentage of age were found forty percent, Thirty six and twenty percent .Respectively on gender fifty six percent students participated ,male rest female. It has been observed that seventy percent subjects were from upper socio economic status. This may be due to their high finical background of urban area. Seventy sis percentages from urban and rest semi urban.

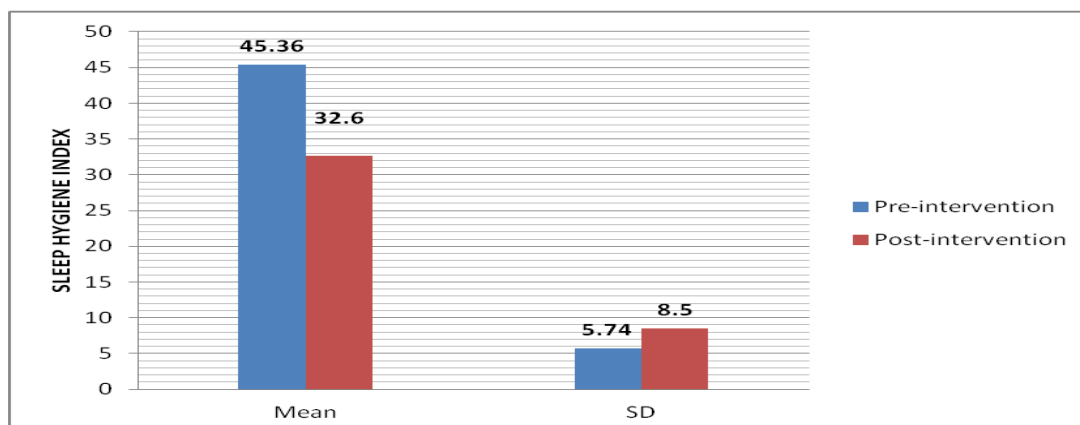
Table 1.b Result of t-test on Sleep Hygiene Index in Undergraduate Students of AUMP

Outcome	Pre-intervention		Post-intervention		n	r	95% CI	t
	M	SD	M	SD				
Sleep Hygiene Index (SHI)	45.36	5.74	32.60	8.50	50	0.45*	[9.65, 15.86]	8.25*

df = 49, *p < 0.05

Note. CI = Confidence Interval

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To test the hypothesis that pre-intervention mean ($M = 45.36$, $SD = 5.74$) and post-intervention mean ($M = 32.60$, $SD = 8.50$) of SHI scores were equal; a paired samples t-test was conducted. Prior to conducting the analysis, the assumption of normality for distributed difference scores was examined. The assumption was considered satisfied, as the skew and kurtosis levels were estimated at 0.06 and 0.93 respectively which is less than the maximum allowable values for a t-test (i.e., skew $< |2.0|$ and kurtosis $< |9.0|$; Posten, 1984). It was also noted that the correlation between two conditions was estimated at $r = 0.45$, $p < 0.05$, suggesting that the paired samples t-test is appropriate in this case. As displayed in table- 1, the null hypothesis of equal SHI means was rejected, $t(49) = 8.25$, $p < 0.05$. The post intervention mean was statistically significant lower than pre-intervention mean. So, it can be concluded that intervention of structured psycho education program has impact on increasing knowledge among pre-university students and decreasing the behavioral problems in regard to sleep.

Limitations

The study was limited only to students pursuing undergraduate university education at the Amity University Gwalior Madhya Pradesh. The study did not use control group. Only a single domain, which is knowledge and behavioral issues, was considered in the present study. The sample size for the study was limited to 50 students.

CONCLUSION

The main aim of the present study was to assess the knowledge and educate the students of undergraduate university college regarding sleep hygiene and sleep disorders. The study revealed that sleep Psycho education intervention increased overall knowledge scores among undergraduate university students regarding sleep hygiene and sleep disorders. It indicates that efforts should be taken by healthcare professionals in educating the students regarding sleep hygiene and sleep disorders, so as to impart knowledge and to create awareness about this problem. The healthcare professionals, Clinical Psychologist can contribute in increasing the awareness regarding sleep hygiene and sleep disorders, change of daily practices to maintain good sleep and accomplish optimum health, and make the nation healthy.

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Acknowledgments

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interests: The author declared no conflict of interests.

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How to cite this article: Sharma V, Sharma R (2017), Effectiveness of Structured Psycho-Education Intervention on Sleep Hygiene & Sleep Disorders in Under Graduate University Students, *International Journal of Indian Psychology*, Volume 4, Issue 2, No. 88, ISSN:2348-5396 (e), ISSN:2349-3429 (p), DIP:18.01.079/20170402, ISBN:978-1-365-74161-6