

A Study to Assess the Effectiveness of Slow Back Massage on Quality of Sleep Among Patients in Selected Government Hospitals, Daman

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ABSTRACT

OBJECTIVE: assess the pre-test and post-test level on quality of sleep of slow back massage among patients admitted in selected government Hospitals, Daman. Determine the effectiveness of slow back massage on quality of sleep among patients admitted in selected government Hospitals, Daman. Therefore, this study aimed to find out the association between the pre-test level on quality of sleep among patients with selected demographic variables in patients in selected Government Hospitals, Daman.

SUBJECTS AND METHODS: A Quantitative Research approach with pre-experimental, one-group pre-test post- test Research design was adopted for the study. A total 40 sample were selected in Government hospitals, Daman based on selection criteria.in this research study consecutive sampling technique was used. Data was collected by using demographic variables and the Groningen sleep quality scale for assessment of quality sleep before and after the intervention of slow back massage

RESULT: The present study assesses the effectiveness of slow back massage in terms of improvement of quality sleep among patients. The post-test mean sleep score 2.65(SD=2.007) was less than pre-test mean sleep score 11.95 (SD=1.934) and 't' value was 15.353(t0.05, 39=2.02) which was the significant effect of the slow back massage (p<0.05) and there is significant mean difference between the pre-test and post-test.the mean difference between the pre-test and post-test was 9.300.the chi-square calculated value shows there was no significant association with demographic variable.

KEYWORDS: Slow Back, Massage, Quality Sleep, Patients.

INTRODUCTION

Sleep is the natural state of rest and that observed throughout the animal kingdom including mammals and birds and, in many reptiles, also amphibians and fish.in humans, other mammals and many other animals that have been studies -such as fish, birds, ants, and fruit-flies- regular sleep in necessary for survival. the capability for arousal from sleep is a protective mechanism and also necessary for health and survival.¹ Sleep can also defined that normal state of altered consciousness during time of body rests; it is characterized by decreased responsiveness to the environments, and a person can be aroused from it by external stimuli.¹Slow -stroke back massage, uses this slow stroke. Slow Back was introduced within a hospital context by Elizabeth in 1996 as slow, gentle, and rhythmic hand movements on the patients back as the steady speed (about 60 movements per minute), with mild and gentle pressure, for 10 minutes.³Back massage care provided those who are admitted in the Hospitals by using various techniques

of back massage like Effleurage, petrissage, friction, tapotement by using these techniques to improvement in the blood flow and also to relieve the deeper muscle tension and clear out toxins.⁵

METHODS:

STUDY DESIGN:

This study design was pre-Experimental research Design (One group pre- test Post -Test Group Design) conducted on patients from the selected Government Hospitals Marward, Daman. In this study the setting of patients admitted in the Government Hospitals at surgical ward, ICU department, Male ward, Female ward, Daman.

SUBJECTS:

A total 40 sample were selected in Government hospitals, Daman based on selection criteria.in this research study consecutive sampling technique was used. The inclusion criteria are Patients who are Admitted in the hospitals surgical ward, ICU department, male ward, female ward. Having inadequate sleep. Between age group of 25-70 years. Who are conscious and able to communicate in Hindi, Gujarati, and English.

STUDY TOOL:

It Consists of 6 items related to selected demographic -variables like age, gender, education, occupational, family income status, Dietary pattern. sleep quality was assessed using the Groningen sleep quality scale. It Consists of 4 items related to selected clinical variable like are you taking any sleeping medication, (if yes than specify), duration of sleep at hospital, area where to patients admitted. Tool consists of total 15 item. questions, scores range from 0 to 15, score between 0 to 5 indicate normal sleep, score between 6 to 10 indicate average sleep and score from 11 to 15 indicate poor sleep or disturb sleep. Total minimum score is Zero and maximum is 15. One point if answer is true for question 1,2,3,4,5,6,7,9,11,13,14,15, One point if answer is false for question 8,10,12, Scores between 0 to 5 indicating Normal sleep, Scores ≥ 6 Indicate Disturbed Sleep, Maximum score of 15 point indicates poor sleep.

DATA ANALYSIS:

Data analysis was done by using the statistical package. Statistical significance was calculated by using paired t-test and chi -square, number and percentage, mean, standard deviation.

RESULT:

The present study assesses the effectiveness of slow back massage in terms of improvement of quality sleep among patients. The post-test mean sleep score 2.65(SD=2.007) was less than pre-test mean sleep score 11.95 (SD=1.934) and 't' value was 15.353(t0.05, 39=2.02) which was the significant effect of the slow back massage ($p<0.05$) and there is significant mean difference between the pre-test and post-test.the mean difference between the pre-test and post-test was 9.300.the chi-square calculated value shows there was no significant association with demographic variable.

Table 1: Frequency and percentage wise distribution on quality of sleep among patients according to demographic variable. (n=40)

Sr. No	Demographic Variable	Frequency	Percentage
1	Age in Year		
	25 to 35 years	7	17.50%
	36 to 45 years	10	25.00%
	46 to 55 years	9	22.50%
	56 to 65 years	12	30.00%
	Above 66 years	2	5.00%
2	Gender		
	Female	19	47.50%
	Male	21	52.50%
3	Occupational status.		
	Government Job	1	2.5%
	Home maker	13	32.50%
	Private job	16	40.00%
	Shop /farm	7	17.50%
	unemployed	3	7.50%
4	Education status		
	Non-formal Education	10	25.00%
	Primary school	16	40.00%
	Middle school	7	17.50%
	High school	6	15.00%
	Diploma	1	2.50%
5	Family Monthly income		
	<5000-10000	7	17.50%
	11,000-15,000	29	72.50%
	16,000->25,000	4	10.00%
6	Dietary pattern		
	Mix	37	92.50%
	vegetarian	3	7.50%
7	Are you taking any sleeping medication, (if yes than specify...)		
	No	40	100.00%
	Yes	0	0.00%
8	Duration of sleep at Hospital		
	2 hours and below	23	57.50%
	2.01 to 4 hours	17	42.50%
9	Area where to patients admitted...		
	Female ward	16	40.00%
	ICU	11	27.50%
	Male ward	13	32.50%

In this above-mentioned table 1: shows the Demographic information of patients those who participated for the study on “A study to assess the effectiveness of slow back massage on quality of sleep among patients admitted in selected government Hospitals, Daman.

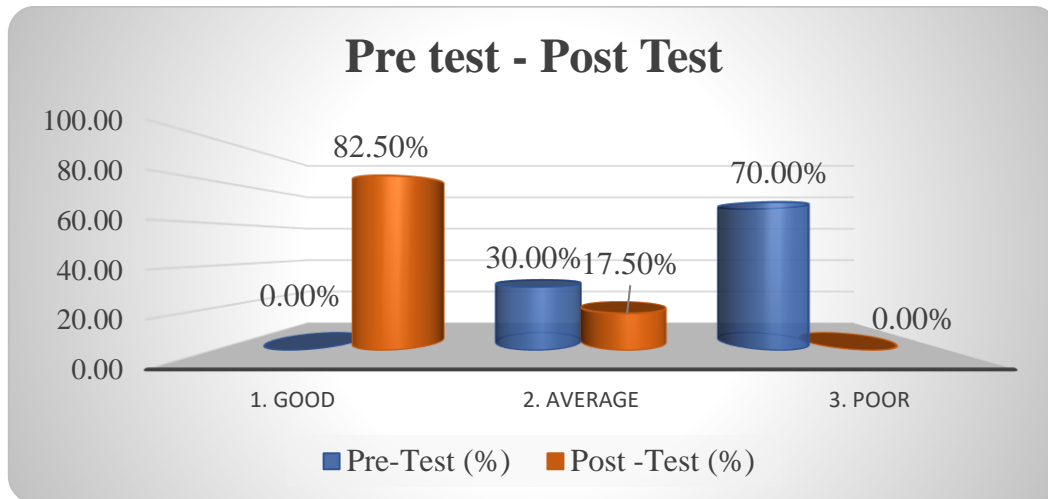


FIGURE 1 : CYLINDRICAL DIAGRAM SHOWS THE FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRE-TEST AND POST TEST LEVEL ON QUALITY OF SLEEP.

In this above mention Figure 1: the distribution of patients on pre-test and post -test score where majority 33 (82.50 %) from post-test good quality of sleep among patients than the pre-test. In pre-test 12(30.00%) from average quality of sleep among patients. In pre-test 28(70.00%) were belong with poor quality of sleep high than the post-test quality of sleep. Hence, the study result Revealed that after intervention of slow back massage was effective in improvement on Quality of sleep among patients in selected Government Hospitals, Daman.

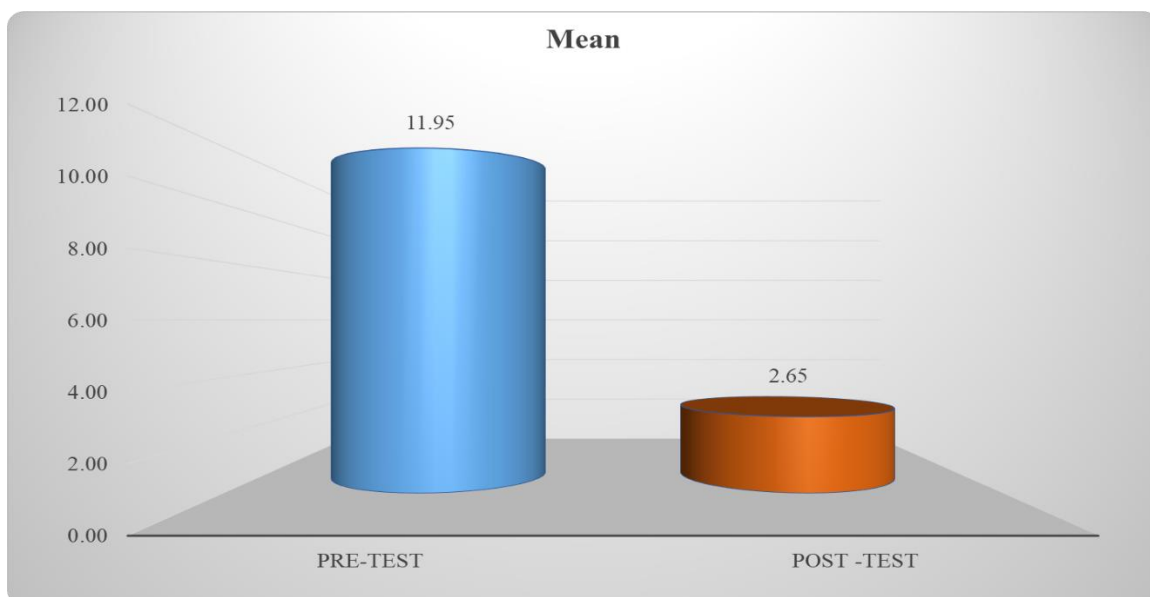


FIGURE 2: CYLINDRICAL DIAGRAM SHOWS THE MEAN SCORE BETWEEN RE-TEST AND POST -TEST LEVEL ON QUALITY OF SLEEP AMONG PATIENT.

In this above mention Figure 2 : the Mean difference between the pre-test and post-test score was 9.300. and depicted the obtained ‘t’ value is (t (39,0.05 =15.353<0.05). Therefore, found to be calculated “t” value is higher than the Tabulated value. Hence, the Hypothesis (H₁) statement the patients admitted to the wards will experience improved sleep quality followed with the application of slow back massage shows effectiveness in improving the level on quality of sleep among patients in selected Government Hospitals, Daman. Hence, the researcher Accepted the research (H₁) Hypothesis.

TABLE 2: Association between the pre-test level on quality of sleep with the selected demographic variables.

(n=40)

Sr. No	Demographic Variables	Quality of sleep			Df	Chi-square	t-value	Inference
		Good	Average	Poor				
1	AGE				4	2.638	9.49	NS
	A)25 to 35 years	0	1	6				
	B) 36 to 45 years	0	2	8				
	C) 46 to 55 years	0	4	5				
	D) 56 to 65 years	0	4	8				
	E) Above 66 years	0	1	1				
2	GENDER				1	0.43	3.85	NS
	A) Female	0	6	13				
	B) Male	0	6	15				
3	OCCUPATION STATUS				4	1.777	9.49	NS
	A) Government job	0	0	1				
	B) Home maker	0	3	10				
	C)Private job	0	6	10				
	D)Shop/farm	0	2	5				
	E) unemployed	0	1	2				
4	EDUCATION STATUD				4	1.431	9.49	NS
	A) Non-Formula Education	0	4	6				
	B) primary school	0	5	11				
	C) Middle school	0	2	5				
	D) High school	0	1	5				
	E) Diploma	0	0	1				
5	FAMILY MONTHLY INCOME				2	.679	5.99	NS
	<5,000-10,000	0	3	3				
	11,000-15,000	0	8	21				

	16,000->25,000	0	1	3				
6	DIETARY PATTERN				1	.017	3.83	NS
	A) Mix	0	11	26				
	B) Vegetarian	0	1	2				
7	ARE YOU TAKING ANY SLEEPING MEDICATION (IF YES THAN SPECIFY.)				0	.0	0	NS
	Yes	0	9	28				
	No	0	3	0				
8	DURATION OF SLEEP AT HOSPITAL				1	2.148	3.84	NS
	2 hours and below	0	9	14				
	2.01 to 4 hours	0	3	14				
9	AREA WHERE TO PATIENTS ADMITTED				2	.406	5.99	NS
	Female ward	0	4	12				
	ICU	0	4	7				
	Male ward	0	4	9				

DISCUSSION

The study was to assess the effectiveness of slow back massage on quality of sleep among patients admitted in the Selected Government Hospitals, Daman. This study was conducted using pre-experimental, non-probability consecutive sampling technique. 40 sample were selected based on Inclusion criteria. The data was statistically analysis with demographic variables. The data findings have been organized and discussed under the following sections:

Section 1: Frequency and percentage distribution quality of sleep according to demographic variables. Hence ,The study result revealed that Majority of 12(30.00%) sample belongs to age between 56 to 65 years, as regards to Gender Majority 21(52.50%) sample were in male, As regards to occupational status 16(40%) sample were private job, As regards to educational status 16(40%) sample were primary school, As regards to family monthly income 29(72.50%) sample were between 11000-15000Rs, As regards Dietary pattern 37(92.50 %) sample have mix, As regards if they are taking any sleeping medication (if yes than specify.) 40(100%) sample were not taking sleeping medication, As regards duration of sleep at hospital 23(57.57%) sample were 2 hours and below ,As regards Area where to patients admitted 16(40%) sample were female ward. This is similar to study conducted by Mrs.Salini. K, at Kerala, on Therapeutic Back massage on the Quality of sleep among Hospitalized patients with Sleep pattern Disturbances. In the Result shows that in experimental group, Majority 8(40%) was between age group of 71-80 years. Majority regarding gender 11(55%) were in Male and 9(45%) from female. Majority

regard with number of days stayed in hospital from experimental group 8(40%) were between 1-3 days and 4 to 6 days. And in control group majority 11(55%) between 1-3 days.

Section 2: pre-test and post -test level on quality of sleep among patients. Hence, the alternative hypothesis stated that there will be significant mean difference in the pre-test and post-test level on quality of sleep among the patients and the research Hypothesis (H_1) was accepted at 0.05 level of significance. This similar study to conducted by Reva. B, Emrah. A, et.al. the effect of back massage on sleep Quality the findings shows that a significant difference was observed in improvement on Quality of sleep after using back massage on experimental group.

Section 3: Effectiveness of slow back massage on quality of sleep among patients. Hence, the research hypothesis (H_1) was accepted. stated that the patients admitted to the wards will experience improved sleep quality followed with the application of slow back massage was accepted. This support that the after intervention of slow back massage shows effectiveness in improvement the level on quality of sleep among patients. This is similar study to conducted by Nahed. A, Mona .M, et, al at Egypt, on the effect of back massage on perceived sleep Quality among Adult Patients in intensive Care Units, the findings shows that a back massage is an effective intervention to promoting quality of sleep among patients.

Section 4: Association of pre-test level on quality of sleep with selected demographic variables. Hence, “there is a significant association between the pre-test level on quality of sleep with selected demographic variables at the 0.05 level of significance”. Alternative Hypothesis (H_2) is Rejected. Another similar study conducted by Dr. Sawsan Ghazal, at Lattakia, Syria, on Effects of back massage and Facial Massage on sleep Quality in critically ill patients, Findings shows statistical association with demographic variable such as age, Gender, BMI, Night sleep Minutes, has no significant association with demographic variable. therefore, it is reasonably concluded that back massage helped in improvement of quality sleep in critical ill patients.

CONCLUSION:

The study brought out the conclusion the quality of sleep in the post-test was significantly lower than the pre-test. Slow back massage was found to be effective in improvement quality of sleep among patients. There was significant association between pre-test quality of sleep and the demographic variable. Through the knowledge in practice nurses to know the importance the slow back massage non-pharmacology practice proves improvements in the quality of sleep. So, the investigator concluded that the slow back massage is an appropriate method to improve the quality of sleep.

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