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Evaluation of the Benefits of Back Massage for Orthopedic Patients Undergoing Treatment in a Hospital Setting

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Mayuri Vijay More¹, Swati Ingale², Mahadeo Shinde³

1 Clinical Instructor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences "Deemed To Be" University, Karad, Maharashtra, India

2 Clinical Instructor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences "Deemed To Be" University, Karad, Maharashtra, India

3 Professor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences "Deemed To Be" University, Karad, Maharashtra, India

Corresponding Author

Mrs. Swati Astik Ingale

Clinical Instructor, Krishna Institute of Nursing Sciences, Krishna Institute of Medical Sciences Deemed To Be University, Karad, Maharashtra, India

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Abstract

Background: Many millions of people view the primary societal issue as a source of discomfort. A massage is the most effective method for reducing the discomfort. The purpose of this study was to evaluate the efficacy of back massage on the level of pain experienced by orthopaedic patients who were currently being treated at Krishna hospital. The following are the settings and designs: In order to modify the study.

Material & Methodology: The research design that was chosen for the experiment was a one-group pre-test and post-test research design. The research was conducted using experimental methods. Patients with orthopaedic conditions who were admitted to the Krishna Hospital Karad made up the population for this study. The Purposive Sampling Technique was utilised for the selection criteria of the samples to be taken. A numeric pain scale was utilised in order to gauge the level of discomfort experienced by orthopaedic patients. For the purpose of data analysis, statistical analysis Utilization of both descriptive and inferential statistics.

Result: According to the findings of the current study, out of 60 participants, 0 (zero) reported having light pain, 29 (48.3%) reported having moderate pain, and 31 (51.6%) reported having severe pain in the pretest. At the time of the posttest, out of sixty, thirty-four (56.6%) had mild pain, twenty-six (43.3%), moderate pain, and none (0%), had severe pain. The mean pain level score at post test was 5.28, which was lower than the mean pain level score at pretest, which was 7.85. Pain was rated as having a mean score of 7.85 2.064 before the exam, however after the test, it was rated as having a mean value of 5.28 1.450. The t-value came out to 7.8921. The value of P with two tails was less than 0.0001, as expected.

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Conclusion: The results of the study indicated that back massage is beneficial and significantly reduced the amount of pain experienced by hospitalized orthopaedic patients.

1. Introduction

Affective and sensory components are both involved in experiencing pain. In relation to the passage of time, sensory properties such as pressure, intensity, and the localization of pain are explained. The affective component of pain is closely tied to the emotional setting and frequently manifests as a feeling that might be described as "unpleasantness." 1-5 one Keeping up with one's physical health in today's environment can be difficult for a variety of reasons, which is why it's more important than ever to do so. Pain has the potential to negatively impact a patient's psychological, physiological, mental, and social functioning, and it also lowers the overall quality of the patient's life. The physiological impacts include poor breathing and hunger, as well as diminished movement and sleep difficulties. 6

Massage, along with other forms of complementary therapy, is increasingly being used by medical practitioners to treat a diverse variety of symptoms, including pain, as part of an integrated approach to patient care.

7 One type of treatment for the alleviation of pain is known as non-pharmaceutical treatment. The primary objective of medicine is to alleviate the suffering of patients, and this is typically accomplished by administering narcotic painkillers to them. However, these medications almost always come with the

undesirable side effect of lowering their efficacy. Therefore, they need to be changed for another approach or used significantly less. 8 In conjunction with other therapies, these treatments may not be able to entirely alleviate the patient's discomfort, but they may be of some assistance. Massage is a non-medical treatment that can be utilised to treat acute discomfort. 10

Any of the systematic forms of manipulations or touches that are done on the soft tissues of the body can be considered a massage. The goals of massage are to provide comfort and to improve health. 11-13 Massage and other forms of touch therapy have been utilised for the treatment of pain for ages. 14

Research Question

Evaluation of the benefits of back massage for orthopedic patients undergoing treatment in a hospital setting

2. Objectives of the Study

1. To Evaluate the benefits of back massage for orthopedic patients undergoing treatment in a hospital setting

3. Materials and Methods

Methodology of the Evaluative Research and The pre-test and post-test design of the research for a single group was approved for the study. Utilizing the Purposive Sampling Method, this research was conducted on a population of sixty orthopaedic patients who

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were recently hospitalised to Ward No. 5, 6, of the Krishna Hospital in Karad. Patients hospitalised for orthopaedic conditions who were willing to take part in the study were required to meet the inclusion criteria for the sample selection. Hospital authorities, as well as the ethical committee Permission was received, and patients gave their consent after being fully informed. After compiling the demographic information, a numerical pain scale based on the Wong-Baker faces pain rating scale was utilised to assess the efficacy of back massage in reducing pain experienced by orthopaedic patients. Back massage was performed for a total of three five-minute sessions over the course of one week (on the first, third, and sixth days). After one week, on the seventh day after the initial post test, an evaluation of the level of pain experienced by orthopaedic patients who were admitted to Krishna hospital would be carried out using a pain scale. When applied to the back in the

form of a massage with parachute oil, which helps to alleviate bed sores brought on by an extended period of lying down, It also helps to relieve pain and muscle tightness, relaxes the muscles, and increases blood and lymph flow, so it's a pretty all-around win.

The following variables are included in the socio-demographic information collected by Section A of the tool: age, gender, occupation, religion, residential area, family income, marital status, and so on.

The Numerical Pain Scale is Presented in Section B

Every question received a score of three points. Wong-baker experiences pain that can range from mild to severe on the rating scale. The following scoring key is used: 0-2 for mild, 4-6 for moderate, and 8-10 for severe.

Plan for Analyzing the Data: All of the gathered information was evaluated with both descriptive and inferential statistics.

4. Results

Section A:

Table 1 : Frequency and percentage distribution of sample according to their socio demographic variables. (N=60)

Sr. No	Characteristics	Category	Frequency(N)	Percentage (%)
	Age (Yrs.)	Below 40	20	33
		Above 40	40	67
	Residential Area	Rural	36	60
		Urban	24	40
	Sex	Female	20	33
		Male	40	67
	Marital Status	Unmarried	14	23
		Married	46	77

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	Occupation	Business	19	32
		Farmer	22	37
		Government	19	31
	Income	5000-10000	14	24
		Below 5000	12	20
		10000-20000	29	48
		Above 20000	05	08
	Religion	Muslim	15	25
		Hindu	45	75

- Thirty-three percent of participants were aged forty and under, while sixty-seven percent of participants were aged forty and over. The majority of participants, sixty-seven percent, were of the male gender, while twenty percent of participants were of the female gender. In terms of the residential area, 24 of them, or forty percent, were located in the urban region, while the remaining 36, or sixty percent, were located in the rural area. In terms of occupation, 22 (37%) were farmers, 19 (32%) were employed in private enterprise, and 19

(31%) worked for the government. In terms of their marital status, 46 people (or 77% of the total) belonged to the married group, while only 14 people (or 23% of the total) did not have a spouse. In terms of their religious affiliation, 45 individuals, or 75%, belong to the Hindu religion, while 15 individuals, or 25%, belong to the Muslim religion. In terms of the income of families, 14 (24%) fall between 5000 and 10,000, 12 (20%) fall below 5000, 5 (8%) fall over 20,000, and 29 (48%) fall between 10000 and 20,000 etc.

Table 2 : Score Interpretation Of Pre-Test And Post Test Score

Level of Pain	Pre-Test		Post Test	
	Frequency	%	Frequency	%
Mild	0	0	34	56.6%
Moderate	29	48.3%	26	43.3%
Severe	31	51.6%	0	0

The results of the pre-test and the post-test are summarised in Table 2, which provides a frequency and percentage distribution of the level of back pain experienced by orthopaedic patients. According to the data

presented above, the mean degree of pain after the test was 5.28, which is significantly lower than the mean level of pain before the test, which was 7.85. As a result, the hypothesis that was given was validated.

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According to this, out of a total of 60 individuals, none of them had light pain, 29 had moderate pain, and 31 had severe pain during the pretest.

During the post-test, there were a total of 60 participants; 84 of them reported having light pain, 26 reported having moderate pain, and none of them reported having severe pain.

Section B: Effectiveness of back massage on pain among orthopedic patients admitted at Krishna hospital

Table 3: Mean, Standard deviation, Mean improvement and 't' value on pre-test and post-test score on effectiveness of back massage

Practice	Mean	S. D	Mean Difference	T VALUES
Pre-test	7.85	2.064	2.57	t = 7.8921
Post-test	5.28	1.450		

***Extremely significant at $p < 0.0001$ level

According to the data presented in the table, the pre-test mean score on pain was 7.85 2.064, however the post-test mean score was only 5.28 1.450. The t-value came out to 7.8921. The value of P with two tails was less than 0.0001, as expected. According to the standards that are typically used, this difference was seen as being extremely statistically significant. As a result, it turned out to be obvious that the back massage was

successful in reducing the amount of pain experienced by orthopaedic patients who were hospitalised to the Krishna hospital in Karad. As a result, the research hypothesis H was found to be valid. Therefore, it became clear that the back massage was successful in reducing the amount of pain experienced by orthopaedic patients who were hospitalised to the Krishna hospital in Karad.

5. Discussion

According to the findings of this particular research study, the pre-test mean score on pain was 7.85 2.064, whereas the post-test mean score was just 5.28 1.450. 7.8921 was the value of the t-test. A clinical trial study that included sixty patients who had undergone arthroscopic knee surgery and were hospitalised in the orthopaedic wards of Al-Zahra and Kashani hospitals. The

purpose of this study was to assess the impact that massage therapy had on the level of pain experienced by orthopaedic patients. A questionnaire consisting of two parts was employed for the data collection. A simple continuity approach was employed to pick the samples, and then those individuals were arbitrarily split up into two groups. The patients in the intervention group received routine treatments from the researcher in the

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form of a daily 20-minute massage. Both before and after the massage, the patients' levels of discomfort were rated. Descriptive and inferential statistics, as well as the SPSS software, were utilised in the data analysis process. According to the findings, the significant difference between the mean score of the pain severity before and after massage in the intervention group was found to be ($p = 0.001$) in the statistical analysis. However, there was no discernible change in the group that served as the control ($p = 0.32$). After the interventions, there was a noteworthy change in the mean score of pain severity between the two groups ($p = 0.001$), but before the interventions, there was no meaningful difference ($p = 0.34$). Massage as an effective and safe intervention, as well as a cheap and easy approach for treating pain in hospitals and at the homes of patients. 15

A quasi-experimental study with a non-randomized control group pretest –posttest design was used to evaluate the efficacy of back massage in alleviating post-operative pain and enhancing the quality of sleep in thirty patients who had undergone orthopaedic surgery at various hospitals in the Dindigul District. The patients had all undergone the procedure in Dindigul. In order to determine the extent of postoperative suffering, a convenience sample technique and a visual analogue scale were utilised. The findings showed that the mean score on the pre-test for the control group was 84.7 with a standard deviation of 8.4, whereas the mean score on the post-test was 83.7 with a standard

deviation of 9.5. The fact that the calculated 't' value on day-I, II, and III in the experimental group were 3.5, 4.4, and 4.5, respectively, was statistically highly significant at the $p0.001$ level indicates that there was a significant reduction in the amount of pain experienced by patients who had undergone orthopaedic surgery after receiving back massage. 16

Study Funding Obtained

A randomised controlled experiment was conducted with the objectives of determining the efficacy of myotherapy in treating pain, determining the relationship between pain, and associating the selected variables with pain in patients who had major orthopaedic surgery. The research was carried out on a total of 250 samples, of which 125 were used for the study and 125 were used for the control group. Findings A significant strong positive correlation between pre-test stress and pain, which was significant at $p0.001$, as well as a significant strong positive association between post-test pain V and post-test stress, which was significant at $p0.001$. Both of these correlations were significant. The findings of the repeated measures analysis of variance (RM ANOVA) revealed that there was a significant difference ($p = 0.001$) on Pain between the groups as well as within the group among the patients who had had major orthopaedic surgery. In conclusion, the findings of the study indicate that engaging in myotherapy can lessen the intensity of pain, cut down on the amount of opioid medication required, and enhance one's overall quality of life. 17

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6. Conclusion

Massage therapy has the potential to induce a reactive response that can improve one's capacity to rest, establish a tranquil mood, and other attributes that are needed for the process of healing to take place. According to the findings of the most recent study, back massage is an efficient and affordable approach for reducing the pain experienced by orthopaedic patients.

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