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A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ACHARYA TECHNIQUE ON REDUCTION OF BACK PAIN AMONG IT PROFESSIONALS IN SELECTED IT COMPANY, DELHI NCR

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Abstract

Background

Back pain is the most widely recognized medical consultation in all the nations. One of the most frequent causes of disability globally is back pain. It can happen for several reasons that aren't always connected to an underlying illness. Overusing muscles from heavy lifting or excessive exercise, extended sitting or lying down, sleeping in an awkward position, or wearing an improperly fitting backpack are some typical causes of back discomfort.

Aims

The purpose of this study is to determine the prevalence and risk factors of back pain among industrial workers.

Materials and Methods

A pre-experimental study was conducted among industrial workers seeking back pain at an IT Company in Delhi. Demographical data were collected through a self-structured questionnaire. The level of pain was assessed by using the Functional Rating Index. The data was analyzed by using inferential statistics.

Results

The findings of the study reveals that the mean post- test back pain of the experimental group 3.36 and the mean pre- test back pain 8.76. It implies that there was a significant improvement in the back pain in the experimental group (t_{cal}= 23.407), $p< 0.05$.

Conclusions: The present study concluded that Acharya technique was highly beneficial for improving back pain among industrial worker.

Key words: Effectiveness, Back pain, Acharya Technique, Industrial workers

INTRODUCTION:

Pain is defined as an unpleasant sensory, emotional, and subjective sensation connected to existing or prospective tissue damage by the International Association for the Study of Pain. The **World Health Organization (2012)** defines low back pain (LBP), also known as lumber sacral pain or lumbago, as discomfort in the spinal area felt at least once a month, below the level of the 12th rib and above the gluteal folds, with or without radiation into the leg (between the lower costal margins and gluteal folds).

Mr. S.M Acharya founded 'The Save India Association' (SIA). He had tried everything to find a cure for his medically incurable 40-year-old backache problems. Still, top orthopedics had advised him to try a simple 3-minute relaxation exercise instead of taking medication or having surgery. He tried simple stretching exercises daily before getting up from bed after sleep as a trial-and-error base for curing his back pain. To strengthen the muscles of the low back and relieve low back pain, try this easy 3-minute relaxation exercise.

Prominent patients and celebrities expressed their gratitude to Dr S.M Acharya for introducing such a simple relaxation exercise which is immensely beneficial to them for curing their back ache completely.

Industrial workers are exposed to various musculoskeletal problems especially in tasks related to production. Low back pain is the main problem in most musculoskeletal disorders. Therefore, our study aims to identify the prevalence of work-related low back pain and its risk factors among industrial workers **(Md. Omar Sharif Ahmmed Chowdhury et. al, 2023)**

OBJECTIVES OF THE STUDY:

- To assess the prevalence of back pain among IT industrial workers.
- To assess the knowledge regarding prevention of low back pain among IT workers.
- To determine the effectiveness of Acharya technique on the reduction of back pain among IT industrial workers.
- To find out the association between the pretest knowledge score with selected demographic variables.

ASSUMPTION:

Acharya technique may be beneficial for reduction of back pain among IT professional's workers.

HYPOTHESIS

H1: The post-test mean score of knowledge about low back pain after participating in an education programme on information relevant to low back pain prevention is higher than the pre-test mean score of knowledge at the 0.005 level of significance.

H2: Workers in the information technology industry can expect to feel less back discomfort after using the Acharya method.

H3: The pre-test knowledge score of the IT workforce will be highly associated with a range of demographic variables.

RESEARCH METHODOLOGY

Part I- Demographic data and clinical Variables- This part consists of: Age, Weight, Marital Status, Educational Status, Type of family, Monthly income, Duration of working hours, Duration of pain experience, Nature of work, Any diseases problem

Part II- This part consists of using Functional Rating Index to evaluate the back pain before and after the intervention.

Part III- This part consists of Self- Structured Questionnaire to evaluate the knowledge of prevention of back pain**.**

Procedure for data collection-

Formal administrative permission was taken from Manager of Panasonic Life Solutions India Pvt. Ltd., Delhi. Sixty samples were selected by the purposive sampling technique. To obtain free and frank response, the purpose of the study was explained and the subjects were assured about the confidentiality of their response. Data was collected with help of Functional Rating Index to evaluate the back pain followed by a Acharya technique in the morning for 10 days with a duration of 3-5 minutes once a day. A total score of 20% or less indicates minimal pain, whereas a score 61% or more indicates severe pain. Analysis of data was done through descriptive and inferential statistics.

Ethical Consideration-

Prior to the data collection the investigators had taken written permission from Principal, Panna Dhai Maa Subharti Nursing College. Written and verbal consent was taken from the participants before data collection and confidentially was ensured under all circumstances.

ANALYSIS AND INTERPRETATION

Table1. Frequency and percentage distribution of pre-intervention and post-intervention knowledge level of prevention of back pain among industrial workers

LEVEL OF KNOWLEDGE	PRE-INTERVENTION		POST-INTERVENTION	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
POOR KNOWLEDGE	0	0	0	0
MODERATE KNOWLEDGE	17	28%	5	8%
GOOD KNOWLEDGE	43	72%	55	92%

Table 1 shows the knowledge level of prevention of back pain among manufacturing workers both before and after receiving education programe of the industrial workers, 17 (28%) reported moderate knowledge, and 43 (72%) reported good knowledge prior to intervention. Following the intervention, 5 (8%) industrial workers reported moderate knowledge, and 55 (92%) reported good knowledge.

Table2. Comparison of mean and standard deviation between pre-intervention and post-intervention levels of knowledge of prevention of back pain among industrial workers

	Self-Structured Questionnaire					Mean Difference	Standard Error Mean	Paired T Test			
		Pre- Test		Post- Test							
Group	**N**	**Mean**	**SD**	**Mean**	**SD**			**df**	**'t' value**	**p-value**	**Result**
Experimental Group	60	21.58	2.01	27.56	1.96	5.98	0.24	59	24.39	.000	Significant

Table2. According to Table 5, the average and standard deviation of the experimental group before to the test were 21.58 and 2.01, respectively. The experimental group's post-test mean and standard deviation are 27.56 and 1.96, respectively, and the paired "t" test yields a value of 24.39, which is less than 0.05. 5.98 points were gained in efficiency and make from the first to the second test. The results exhibit statistical significance when viewed at the $p<0.05$ level.

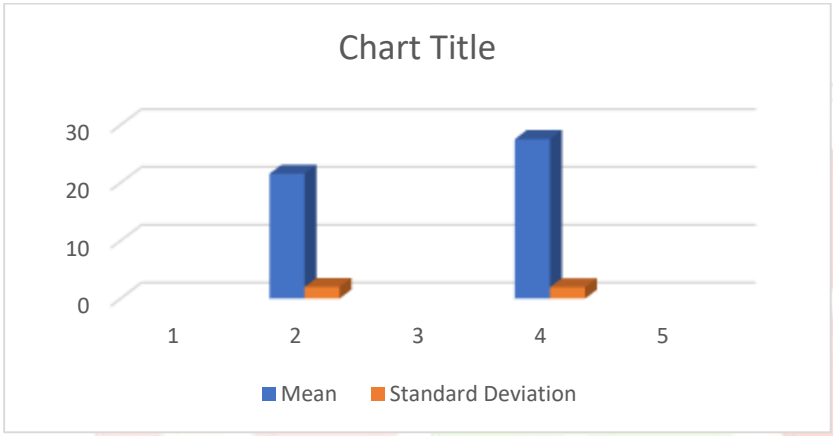


Table3. Frequency and percentage distribution of pre- test and post-post levels of back pain among industrial workers

LEVEL OF BACK PAIN	PRE-INTERVENTION		POST-INTERVENTION	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
MINIMAL PAIN	24	40%	50	83.3%
MODERATE PAIN	33	55%	10	16.6%
SEVERE PAIN	3	5%	0	0%

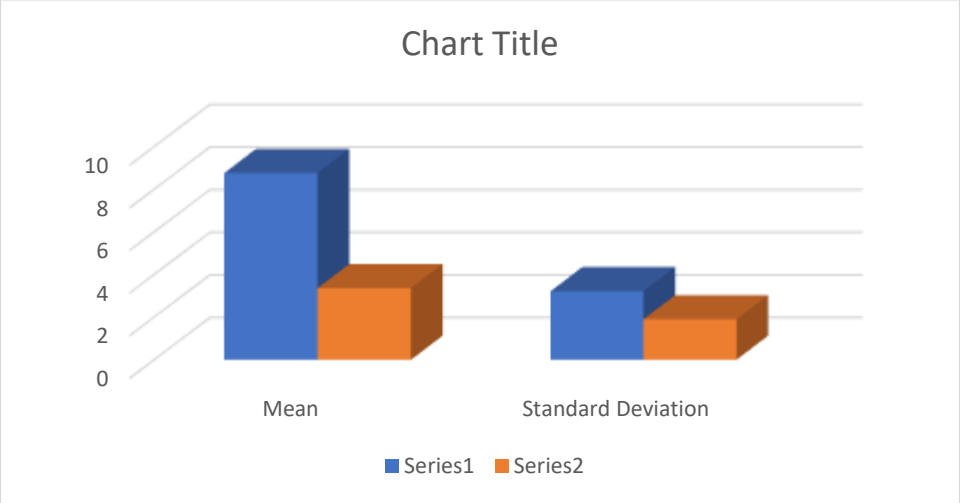
Table 2 shows the prevalence and distribution of back pain among manufacturing workers both before and after receiving Acharya approach therapy. Of the industrial workers, 24 (40%) reported mild back pain, 33 (55%) reported moderate back pain, and 3 (5%) reported severe back pain prior to intervention. Following the intervention, ten industrial workers reported mild discomfort, fifty reported no pain at all, and none of the workers reported severe back pain.

Table 4. Comparison of mean and standard deviation between pre-intervention and post-intervention levels of back pain after the Acharya technique among industrial workers

	Functional Rating Index					Mean Difference	Standard Error Mean	Paired T Test			
		Pre- Test		Post- Test							
Group	**N**	**Mean**	**SD**	**Mean**	**SD**			**df**	**'t' value**	**p-value**	**Result**
Experimental Group	60	8.76	3.22	3.36	1.90	5.40	0.230	59	23.407	.000	Significant

According to Table 4, the experimental group's pre-exam mean and standard deviation were 3.22 and 8.76, respectively. The experimental group's post-test mean and standard deviation are 3.36 and 1.90, respectively; the group's paired "t" test value is 23.407, and its two-tailed "p" value is less than 0.05. Between the first and second exams, there was an average increase of 5.40 points.

At the $p<0.05$ level, all of these statistics are very significant. Consequently, it implies that the Acharya approach's improvement in reducing back pain in industrial workers has occurred.



CONCLUSION

Based on the above findings the following conclusion can be drawn. The Acharya Technique is very effective and significant to decrease the level of back pain among IT workers in selected IT company.

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