



RESEARCH ARTICLE

EFFECTIVENESS OF MUSCLE STRENGTHENING EXERCISES ON LOW BACK PAIN
DISABILITIES AMONG ABOVE 35 YEARS OLD RESIDING IN MAPPEDU VILLAGE

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ABSTRACT

Patient Low back pain (LBP) is a major musculoskeletal problem experienced by many individuals at some period in their lives. LBP is a common complaint associated with functional limitations and disability among elderly individuals. As such, the rehabilitation for LBP has been recommended to manage and reduce the prevalence of this condition among the elderly. 100 low back pain patients were selected with non-probability convenient sampling technique was used. Who had low back pain. Willing to participate in the study. Available during the time of data collection. The data was collected using the tools consist of demographic variable, numerical pain scale. In the study out of 50 samples in the experimental group 0(0%) no pain, 5(17%) mild pain, 25(83%) moderate pain, 0(0%) severe pain. Out of 30 samples in the control group 0(0%) no pain, 0(0%) mild pain, 18(60%) moderate pain, 12(40%) severe pain. The study concluded that there was significant prevention of low back pain in experimental compared with control group due to the application of lukewarm water compress on prevention of low back pain in experimental group than the application of hospital routine care in control group. Moreover it is not a cost effective and not harmful.

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INTRODUCTION

Low back pain is a common disorder. Nearly everyone is affected by it at some time. For most people affected by low back pain substantial pain or disability is short lived and they soon return to normal activities regardless of any advice or treatment they receive. A small proportion, however, develop chronic pain and disability. Once low back pain has been present for more than a year few people with long-term pain and disability return to normal activities. It is this group who account for the majority of the health and social costs associated with low backpain.

There is a generally accepted approach to the management of back pain of less than 6 weeks' duration (acute low back pain). What has been less clear is how low back pain should be managed in people whose pain and disability has lasted more than six weeks. Appropriate management has the potential to reduce the number of people with disabling long-term back

pain; and so reduce the personal, social, and economic impact of low back pain to society.

This guideline covers the management of persistent or recurrent low back pain defined as non-specific low back pain that has lasted for more than 6 weeks, but for less than 12 months. It does not address the management of severe disabling low back pain that has lasted longer than 12 months.

Non-specific low back pain is tension, soreness and/or stiffness in the lower back region for which it isn't possible to identify a specific cause of the pain. Several structures in the back, including joints, discs and connective tissues, may contribute to symptoms. The diagnosis of non-specific low back pain is dependent on the clinician being satisfied that there is not a specific cause for their patient's pain. A clinician who suspects that there is a specific cause for their patient's low back pain should arrange the relevant investigations. However, the diagnosis of specific causes of low back pain is beyond the remit of this guideline.

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Specific causes of low back pain (not covered in this guideline). Malignancy Infection The lower back is commonly defined as the area bounded by the bottom of the rib cage and the buttock creases. Some people with non-specific low back pain may also feel pain in their upper legs, but the low back pain usually predominates. Several structures, including the joints, discs and connective tissues, may contribute to symptoms.

Objectives

- assess the effectiveness on muscle strengthening exercise on a women above 35years.
- to compare pre-test and post-test level of muscle strengthening exercises on low backpain.
- to associate the selected demographic variable with the women above 35 years old.

MATERIALS AND METHODS

Quantitative approach experimental design was adopted to conduct this study. 100 low back painpatient were selected with non-probability convenient sampling technique was used. Who had low back pain are willing to participate in the study available during the time of data collection. The data was collected using the tools consist of demographic variable, numerical pain scale. During the filling of questionnaires, the investigators helped the adults throughout and helped simplifying the meaning of each question, clarifying doubts and checking for completeness of filling up the questionnaire Chi-square test was used to test the association between categorical variables. P < 0.05 was taken as statistically significant.

RESULT

In the study out of 50 samples in the experimental group 0(0%) no pain, 5(17%) mild pain, 25(83%) moderate pain, 0(0%) severe pain. Out of 30 samples in the control group 0(0%) no pain, 0(0%) mild pain, 18(60%) moderate pain, 12(40%) severe pain.50 samples in experimental group 18(36%%) belongs to the age group of 35-45 years, 14(28%) belongs to age group of 46-55 years. Regarding education in experimental group 14(28%) belongs to no formal education, 24(48%) belongs to primary school, 11(22%) belongs to high school, 2(4%) belongs to college. Regarding food habits in experimental group 8(16%) belongs to Non-vegetarian. Regarding type of family in experimental group 13(26%) belongs to nuclear family, 19(38%) belongs to joint family. Regarding area of residence in experimental group 0(0%) belongs to urban, 50(100%) belongs to rural.

Table 1 Distribution of demographic variables of experimental group and control group of above 35 years old

S.No	Demographic variables	Experimental Group		Control group	
		frequency	percentage	Frequency	Percentage
Age of the mother					
1.	a. 35-45years	18	36%	21	42%
	b. 46-55years	14	28%	13	26%
	c. 56-65years	11	22%	11	22%
	d. More than 65years	07	14%	05	10%
Education					
2.	a) No formaleducation	14	28%	15	30%
	b) Primaryschool	24	48%	25	50%
	c) Highschool	11	22%	8	16%

d) College Occupation	2	4%	2	4%	
3.	a) Housewife	10	20%	11	22%
	b) 100 dayswages	24	48%	22	44%
	c) Coolie	16	32%	17	34%
Food habits					
4.	a) Mixed diet	40	80%	36	72%
	b) Vegetarian	2	4%	14	28%
	c) Non vegetarian	8	16%	0	0%
Weight					
6.	a) 30-50 kg	11	22%	11	22%
	b) 51-70kg	20	40%	15	30%
	c) 71-90kg	15	30%	20	40%
	d) Above 90kg	4	8%	4	8%
Area of residence					
7.	a) Urban	0	0%	0	0%
	b) Rural	50	100%	50	100%

Table 2 Frequency and percentage distribution of pre test level of low back pain on experimental and control group

Level of pain	Experimental group		Control group	
	NO	%	NO	%
No pain	0	0%	0	0%
Mild pain	0	0%	0	0%
Moderate pain	20	40%	30	60%
Severe pain	30	60%	20	40%

The above table reveals that out of 50 samples in experimental group 20(40%) were moderate pain, 30(60%) were severe pain. In control group 30(60%) were moderate pain, 20(40%) were severe pain.

Table 3 Comparison of pre test and post test pain score in experimental and control group

Group	NO OF Mothers	Pre Test		Post Test		Paired T-Test
		MEAN	SD	MEAN	SD	
Experimental	50	0.2386	1.3198	0.1553	0.8710	t=15.893
Control	50	0.222	1.2315	0.2033	1.1324	t=6.086

DISCUSSION

It reveals that out of 50 samples in pre test the experimental group 0 (0%) no pain, 0(0%) mild pain, 0(0%) moderate pain, 15(30%) severe pain. In control group 0(0%) no pain, 0(0%) mild pain, 30(60%) moderate pain, 20(40%) severe pain. This result was supported in a study conducted by Ali akbari et al (2014) to assess the low back and the pain severity. The low back pain severity were assessed using Amir scale and VAS tool, respectively before and in the 10th and 14th days after the treatment. The results indicated that muscle strengthening exercise relieved the pain and relieved the low back. It reveals that out of 50 samples in post test the experimental group 0(0%) no pain, 0(0%) mild pain, 17(34%) moderate pain, 33(66%) severe pain. In control group 0(0%) no pain, 0(0%) mild pain, 30(60%) moderate pain, 20(40%) sever pain. This result was supported in a study conducted by R. Nanthini et al (2015) to assess the effectiveness of muscle strengthening exercise on low back among 30 (15 experimental group and 15 control group) postnatal mother in Chennai. Sample was selected by probability purposive sampling technique. Result of the study overall paired't' test value was significant at the level of p<0.001. This shows that there was significant improvement in back pain. The study finding reveals that muscle strengthening exercises is more effective in relieving back pain.

CONCLUSION

The study concluded that there was significant prevention of low back pain in experimental compared with control group due to the application of muscle strengthening exercises on prevention of low back pain in experimental group than the application of hospital routine care in control group . Moreover it is not a cost effective and not harmful.

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