



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2021; 8(6): 33-35
© 2021 IJPESH
www.kheljournal.com
Received: 28-09-2021
Accepted: 29-10-2021

Kajal Vijay Kale
Final Year Student, Faculty of
Physiotherapy, Krishna
Institute of Medical Sciences
Deemed to be University Karad,
Maharashtra, India

Dr. Poonam Patil
Associate Professor,
Department of Cardiopulmonary
Sciences, Krishna College of
Physiotherapy, Karad,
Maharashtra, India

Corresponding Author:
Dr. Poonam Patil
Associate Professor,
Department of Cardiopulmonary
Sciences, Krishna College of
Physiotherapy, Karad,
Maharashtra, India

International Journal of Physical Education, Sports and Health

Effectiveness of kitchen table exercises in females having low back pain

Kajal Vijay Kale and Dr. Poonam Patil

Abstract

Background: Housewives are more prone to have low back pain due to daily work load, bending & twisting activities.

Objectives: The objective of this study was to find out effectiveness of kitchen table exercises in housewives having low back pain and aware them about these exercises to avoid further damage.

Method: This study was conducted with 40 subjects in and around Karad. Subjects were selected according to the criteria of inclusion and exclusion. Then they were assessed with visual analogue scale, modified Oswestry low back pain disability questionnaire and goniometry. The kitchen table exercise program was given to the patient thrice in a week for the duration of 3 months which consists of 1-6 levels and each level consists of 6 exercises.(13) data was collected and analysed accordingly.

Result: According to this study it was found that kitchen table exercise program found statistically significant over pain and low back mobility tenosynovitis with p value <0.0001.

Conclusion: According to the results of data analysis it was found that kitchen table exercise program is significantly effective for reducing pain as well as improving the range of motion of the low back.

Keywords: Low back pain, Kitchen table exercises, Work related conditions in housewives, Oswestry low back pain disability questionnaire

Introduction

Low back pain (LBP) is the feeling of pain in the lumbar region which may radiate to the lower limb. It is one of the most common symptoms through which people suffer. It is seen that 70 to 80% of the world's population has at least one episode of back pain in their lifetime. The quality of life of individuals decreases due to this condition, as well as deterioration in physical activity. LBP is a multifactorial disorder which involves most active individuals of the society and leads to many socio-economic problems^[1, 2].

The most common cause of low back pain is muscle or ligament sprain which occurs due to repeatedly lifting heavy objects, awkwardly bending or twisting, a sudden awkward movement or overstretching the muscle or ligament. Other causes are sciatica which is caused due to compression or injury to the sciatic nerve^[3]. It causes a burning pain or shock like pain in low back, which usually extends down one leg. Herniated disc is also causes LBP in this the disc which cushions vertebrae gets compressed and bulge outward which can lead to rupture of disc and that causes pain due to the pressure of bulged disc on nerve, low back is the most common place for a herniated disc to occur. Disc degeneration is also one of the causes of low back pain, disc degeneration cause due to repetitive motions. It is common in lower back which causes pain in low back that may extend to buttocks and thighs^[4, 5].

The literature showed that prevalence of LBP is high among females in general population and among this female it is highest among housewives. The most common risk factor of low back pain is heavy physical activities. In our country the types of work done by housewives makes them more prone to develop different musculoskeletal problems; among these musculoskeletal problems LBP is the most common^[6].

In India the LBP is highest in females; as per a new systematic review of the global prevalence of low back pain the LBP was found to be a major problem in women throughout the world. While prevalence of low back pain may vary, population-based data indicate that more than 70% of women experience low back pain at least once in their lifetime, Females and housewives has to do most of the work around the house^[7]. This may demand them to sit,

stand, or bend for long periods of time and lifting heavy weight activities. The amount of work may be doubled if they were obliged serve the guest. In case of housewives, the most common activities include collecting water, harvesting, and carrying heavy objects, including children increases the risk of low back pain; Frequent bending, twisting, lifting, pulling and pushing, repetitive work, static postures also associated with LBP, in our country these work are done by the housewives regularly as their daily activity^[7].

There are several ways to assess low back pain which includes visual analogue scale, it is a measurement scale that tries to measure the amount of pain that a patient feels which ranges from none to an extreme amount of pain^[8, 9]. The another method to assess pain is Modified Oswestry low back pain questionnaire which includes questions about pain intensity, personal care and activities like lifting, walking, sitting, standing, sleeping and also questions relates travelling, social life, homemaking/employment. Each question includes 6 options which scores from 0-5^[10]. In previous studies it is seen that low back pain can limit spinal movements like trunk flexion, extension and side flexion^[11] so to asses range of motion goniometry is used which includes inch tape method^[12].

The Kitchen Table Exercise Program is the exercise program which one can perform by own. This program consists of six levels and each level contains six exercises. The exercises are specifically made to address the components of balance and strength. Two resources are available to complete the Kitchen Table Exercise Program that are manual and DVD or video. The manual Contains, instructions for completing the Kitchen Table Exercise Program Levels 1-6 and adverse event and exercise logs for recording the progress. The DVD / video Consists of The physiotherapist demonstration of Levels 1-6 and complete exercise program^[13].

Methods

This is a comparative study of Effectiveness of Kitchen table exercises in housewives having low back pain and make them aware about these exercises to avoid further discomfort. The study was conducted in and around Karad Taluka. Female subjects suffering from low back pain were included. 40 subjects with age group of 30 to 45 and participants those are willing to participate were selected for the study. Females who are pregnant, diagnosed with diabetes or neurological, cardiovascular or psychiatric disorders or females who had trauma or infection and any major trauma to the spine causing fracture were excluded. Subjects were explained about the procedure of the study. Written consent was taken from them. Then they were assessed with visual analogue scale, modified Oswestry low back pain disability questionnaire and goniometry. The kitchen table exercise program was given to the patient thrice in a week for the duration of 3 months which consists of 1-6 levels and each level consists of 6 exercises. Then study was done according to the results obtained and hence the conclusion was given.

Result

The study was conducted among 40 participants in Karad of Satara District in Maharashtra among which 10 females belongs to age group of 30 to 35 years, 15 females belongs to 36 to 40 years and 15 females were of 41 to 45 year. Paired t test was performed to compare the results of pre and post-test.

According to this study it was found that there is extremely significant result in pre-test and post-test of visual analogue scale with p value <0.0001, t value 11.239 (at rest) and p

value <0.0001, t value 16.717 (on activity). Similarly the results shown extremely significant for pre-test and post-test Modified Oswestry low back pain disability questionnaire with p value <0.0001 and t value 16.979. Results for pre and post-test of range of motion analysis of low back also shown extremely significant with p and t value <0.0001 and 8.641 respectively for lumbar flexion, p and t value <0.0001 and 12.049 respectively for lumbar extension, p and t value <0.0001 and 10.25 respectively for right lateral flexion and p and t value <0.0001 and 8.275 respectively for left lateral flexion.

Discussion

The aim of this study was to find out the effectiveness of kitchen table exercise program in housewives having low back pain. Female subjects suffering from low back pain were included. 40 subjects with age group of 30 to 45 and participants those are willing to participate were selected for the study. Females who are pregnant, diagnosed with diabetes or neurological, cardiovascular or psychiatric disorders or females who had trauma or infection and any major trauma to the spine causing fracture were excluded.

This study was conducted with 40 subjects in and around Karad. The Subjects were explained about the procedure & written consent was taken from them. They were also asked if they suffered any other musculoskeletal problems. Then they were assessed with visual analogue scale, modified Oswestry low back pain disability questionnaire and goniometry. The study was done according to the results obtained and hence the conclusion was given.

In our country females are more prone to develop low back pain due to their work which demands them to sit, stand, or bend for long periods of time and lifting heavy weight activities but they ignore this problem and continue doing their work which can cause increase in pain or injury.

Many studies have been conducted on low back pain in females. As per the previous studies it has been seen that LBP is high among females in general population and among this female it is highest among housewives. The most common risk factor of low back pain is heavy physical activities. In our country the types of work done by housewives makes them more prone to develop different musculoskeletal problems; among these musculoskeletal problems LBP is the most common.

Previous studies are carried out to see prevalence of low back pain among the housewives by Sonia Akter which concluded that more than half housewives were suffering from Low Back Pain.⁽⁶⁾ One study also has been done about the effect of kitchen table exercise program on Strength, Balance and Functional Mobility in Elderly Population by Kamble Kiran K, Kanase Smita B, Bathia Khushboo which concluded that the kitchen table exercise program can improve strength, balance and functional mobility in elder population. But no study was done about effect of kitchen table exercise program over pain^[13].

So in females it is necessary to find effectiveness of kitchen table exercise program over low back pain. Even this study helped to analyze its effect over low back mobility so it can improve workability and daily living activities. In this study kitchen table exercise program found statistically significant over pain and low back mobility.

Conclusion

According to the results of data analysis it was found that kitchen table exercise program is significantly effective for

reducing pain as well as improving the range of motion of the low back.

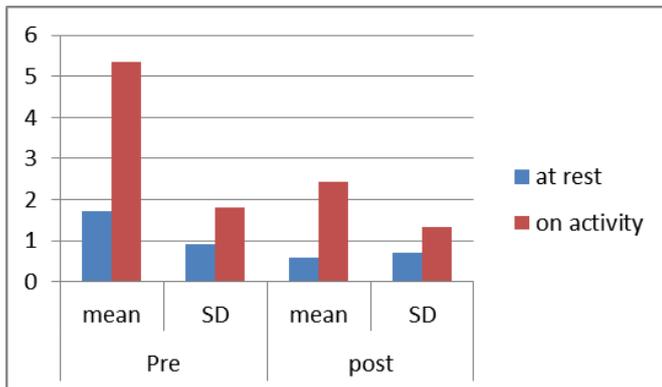
Conflict of interest

There were no conflicts of interest in this study.

Ethical Clearance

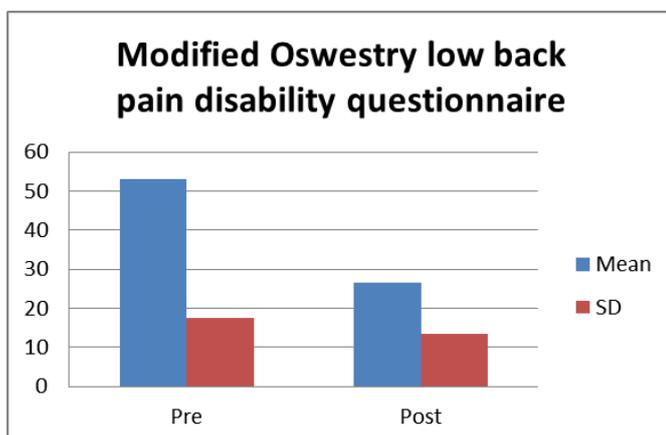
Ethical clearance was taken from institutional committee of Krishna Institute of Medical Sciences, Deemed to be University, Karad.

Source of funding: Self



Graph 1: Visual Analogue Scale (at rest and on activity)

The above chart shows results of VAS in pre-test and post-test. In the pre-test (of rest) has a mean & SD 1.72255 ± 0.9144 and post-test (of rest) has a mean and SD of 0.595 ± 0.7075 . The p and t value are <0.0001 and 11.239 respectively which is extremely significant. In the pre-test (on activity) has a mean & SD of 5.3525 ± 1.794 and post-test (On activity) has a mean & SD of 2.4433 ± 1.321 . The p and t value are <0.0001 and 16.717 respectively which is extremely significant.



Graph 2: Modified Oswestry low back disability questionnaire

The above graph shows the results of Modified Oswestry low back disability questionnaire in pre-test and post-test. The pre-test has a mean & SD of 53.15 ± 17.529 and post-test has a mean and SD of 26.5 ± 13.284 . The p and t value are <0.0001 and 16.979 respectively which is extremely significant

References

- Hartvigsen J, Hancock MJ, Kongsted A, Louw Q, Ferreira ML, Genevay S, *et al.* What low back pain is and why we need to pay attention The Lancet. 2018;391(10137):2356-67.
- Krimer M, Van Tulder M. Low back pain (non-specific).

Best practice & research clinical rheumatology. 2007;21(1):77-91.

- <https://www.healthline.com/health/lower-back-pain-causes-female>
- Walsh K, Varnes N, Osmond C, Styles R, Coggon D. Occupational causes of low-back pain, Scandinavian Journal of work, environment & health. 1989;1:54-9.
- Nazish N, Charles MJ, Kumar V. Prevalence of Musculoskeletal Disorder among House Wives and Working Women, International Journal of Health Sciences and Research. 2020;10(2):215-22.
- Akter S. Prevalence of low back pain among the housewives (Doctoral dissertation, Department of Physiotherapy, Bangladesh Health Professions Institute, CRP).
- Gupta G, Tiwari D. Prevalence of low back pain: Non-working women in Kanpur City, India, Journal of Musculoskeletal Pain. 2014;22(2):133-8.
- Crichton N. Visual analogue scale (VAS), J Clin Nurs. 2001;10(5):706-6.
- Cline ME, Herman J, Shaw ER, Morton RD. Standardization of the visual analogue scale Nursing Research, 1992.
- Alcántara-Bumbiedro S, Flórez-García MT, Echávarri-Pérez C, García-Pérez F. Oswestry low back pain disability questionnaire Rehabilitation-Madrid. 2006;40(3):150.
- Wong TK, Lee RY. Effects of low back pain on the relationship between the movements of the lumbar spine and hip, Human movement science. 2004;23(1):21-34.
- Norkin CC, White DJ. Measurement of joint motion: a guide to goniometry, FA Davis, 2016, 18.
- Kamble KK, Kanase SB, Bathia K. The Effect of Kitchen Table Exercise Program on Strength, Balance and Functional Mobility in Elderly Population, Indian Journal of Public Health Research & Development. 2019;10(2):6-10.
- Sharma A, Shahi S, Begum R, Singh N. To Find Out the Correlation between Pain Disability and Quality of Life with Low Back Pain in Housewives of Age Group 40-50 Years, Indian Journal of Physiotherapy & Occupational Therapy. 2018;12:1.
- Golam K. Common musculoskeletal complaints among the housewives (Doctoral dissertation, Department of Physiotherapy, Bangladesh Health Professions Institute, CRP).
- Koes BW, Van Tulder M, Thomas S. Diagnosis and treatment of low back pain BMJ 2006;332(7555):1430-4.
- McClure SK, Adams JE, Dahm DL. Common musculoskeletal disorders in women. In Mayo Clinic Proceedings, Elsevier, 2005; 80(6):796-802.
- Crichton N. Visual analogue scale (VAS), J Clin Nurs. 2001;10(5):706-6.