

“A Study to Assess the Effectiveness of Single-Leg Glute Bridge Exercise on Low Back Pain among Women attending Orthopaedic OPD at People’s Hospital of Bhopal [M.P]”

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ABSTRACT

Low back pain (LBP) is one among the very common and frequent complaint noted in country. Research suggests that 60 to 80% of data of people who experience low back pain during their lifetime. The Single-leg Glute Bridge exercises used as a comfortable measure to maintain a posture that reduced the pain of the patients suffered with low back pain. The main aim of the study was to assess the Effectiveness of Single-Leg Glute Bridge Exercise on Low Back Pain among Women. To compare the effectiveness of Single-Leg Glute Bridge Exercise on Low Back Pain among Women. A total of 30 women with Low back pain were taken for participate to perform exercise for 15 minutes per day for 3 weeks and changes outcome were measured at begin and at end of study with help of VAS pain scale. Low back pain among women decreases after performing Single Leg Glute Bridge exercise. Pre-test mean and SD were 5.33 & 1.322 respectively whereas post test mean SD were 4.066 & 1.258, with t- Test value 15.425, df 29, tabulated value 2.00. These reading indicate the effectiveness of Single-leg Glute Bridge Exercise on Low Back Pain among women admitted Orthopaedic OPD. This study reveals significant decrease in Low Back Pain in women after performing for 15 min per day. The t- value shows the effect of Single Leg Glute Bridge Exercise on women having Low Back Pain. Exercise were safe and beneficial to alleviate pain.

Keywords: Low Back Pain, Single Leg Glute Bridge Exercise, Visual Analogue Scale (VAS)

INTRODUCTION

The spine is a mechanical organ that has been described as a crane with the ability to support weight, maintain balance, and counter numerous daily strains during normal work and recreational activities. Forces that exceed the capacity of the tissues to stretch can lead to injury and pain.

Low back pain (LBP) is one among the very common and frequent complaint noted in country. Research suggests that 60 to 80% of people experience low back pain during their lifetime, with its prevalence being observed slightly more usual in females rather than males.

The Single-leg Glute Bridge exercises used as a comfortable measure to maintain a posture that reduced the pain of the patients suffered with low back pain. The main aim of the study was to assess the Effectiveness of Single-Leg Glute Bridge Exercise on Low Back Pain among Women.

Objective:

- To assess the Pre-test level of Low Back Pain in women attending Orthopedic OPD at People's hospital of Bhopal, M.P.
- To Provide Single-leg Glute Bridge Exercise, for 15 min. per day for 3 weeks.
- To assess the Post-test level of Low Back Pain in women attending Orthopedic OPD at People's hospital of Bhopal, M.P.
- To Compare the difference between pre-test and Post-test level of Low Back Pain in women attending Orthopedic OPD at People's hospital Bhopal M.P.
- To find the association between pretest level of Low Back Pain and selected Demographic variables of women attending Orthopedic OPD at People's hospital Bhopal M.P.

Hypotheses:

H0: There is no significant effectiveness of Single-leg Glute Bridge Exercise on Low Back Pain among women attending Orthopedic OPD at People's hospital M.P.

H1: There is significant effectiveness of Single-leg Glute Bridge Exercise on Low Back Pain among women attending Orthopedic OPD at People's hospital Bhopal M.P.

H2: There is significant association between pre-test and selected Demographic variables of women attending Orthopedic OPD at People's hospital Bhopal. M.P.

Assumptions:

The Study is based on following Assumptions:

- Single-leg Glute Bridge Exercise will help in reduction of low back pain in women
- Continuous practicing of Single leg Glute exercise by women, will further help in improving physical activity.

Methods: 30 women with Low back pain were taken for participate to perform exercise for 15 minutes per day for 3 weeks and changes outcome were measured at beginning and at end of the study using VAS Pain scale.

RESULT

Section A: Distribution of Socio-Demographic Variables

For Socio-demographic Variables distribution of subjects according to age was that the maximum subjects 15(50%) were in the age group of 41-50 years, 10(33.33%) were between 30-40 years of Age and 05(16.66%) belonged to the Age group of above 51-60 years.

Distribution of subjects according to religion showed that the maximum subjects 25(83.33%) were Hindus, 05 (16.66%) were Muslims.

Distribution of subjects with regard to marital status it was found that 28(93.33%) subjects are married and 2(6.66%) were unmarried.

Majority 20 (66.66%) of the subjects belonged to Nuclear family and only 10(33.33%) belonged to Joint Family. In relation to the occupation, majority 19 (63.33%) were not working and only 11 (36.66%) were working.

With regard to monthly income 10(33.33%) had monthly income below Rs 5000, 15(50%) had between Rs. 5001-Rs 10,000, 05 (16.66%) had more than Rs 10,000 - Rs 15,000.

Distribution of subjects according to type of diet showed that majority 25 (83.33%) were vegetarian and only 05(16.66%) were Non-vegetarian.

Section B: Measurement of Low Back Pain by using Visual Analogue Scale

The measurement of Pre-test and Post test Low Back Pain among women attending orthopedic OPD where the Pretest mean was 5.33 and standard deviation was 1.32 where in post-test mean was 4.06 and standard deviation was 1.25., with t- Test value 15.425, df 29, in pre-test out of 30 low back pain patients 8 had very severe pain, 6 had severe, 13 had moderate pain. Whereas in post-test 7 had severe, 8 had moderate pain and 13 mild pain.

Table 1: Analysis of Difference between Pre-Test and Post-Test:

Test	Mean	SD	t test value	df	Tabulated value	Significant
Pre test	5.33	1.32	15.42	29	2.00	Significant at P value >0.005
Post test	4.06	1.25				

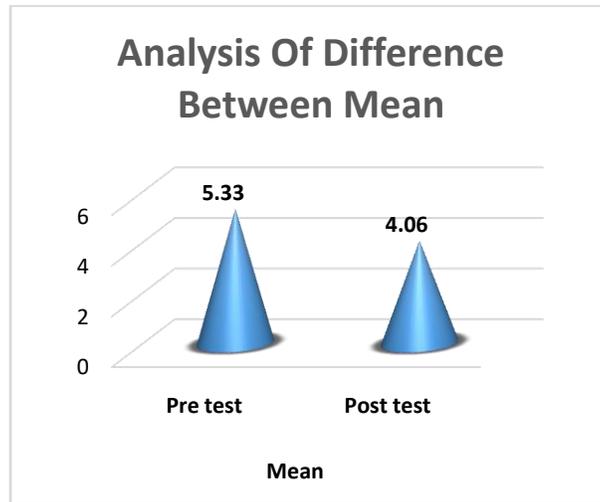


Figure 1: Pre-test and Post-test score according to Mean & Standard deviation

Describe that pre-test mean and SD were 5.33 & 1.32 respectively whereas posttest mean & SD were 4.06 & 1.25, with t-test value of 15.42. Which was found to be more than tabulated value ($p = 0.05$), thus, in dictating the effectiveness of single leg glute bridge exercise on low back pain.

Section C: Association with Pre-Test Level of Pain and Selected Demographic Variables

There is no significant association between. Chi-square test was used to analyze the data to find the association between demographic variable with Pre-test Score of Low Back Pain women patients. The result revealed that there was no significant association between age, marital status, and type of family, occupation, food pattern and Pre test Score of Low Back Pain.

The Chi-square value of age 1.74, tabulated value 0.49 at 2 degree of freedom. Chi-square value of marital status 0.09, tabulated value 0.92 at 1 degree of freedom.

Chi-square value of type of family 0.26, tabulated value 0.60 at 1 degree of freedom.

Chi-square value of occupation is 0.74, tabulated value 0.38 at 1 degree of freedom.

Chi-square value of food pattern 2.67, tabulated value 0.10, 1 degree of freedom

The finding indicated that Age, Marital Status, Type of Family, Occupation and Food Pattern do not have any influence. Thus, the H2 that whereas there is significant association between pre-test and selected Demographic variables of women attending Orthopedic OPD at People's hospital Bhopal. M.P. was not accepted.

CONCLUSION

The study was done to evaluate the Effectiveness of Single-leg Glute Bridge Exercise on Low Back Pain among women attending Orthopedic OPD at People's hospital of Bhopal, (M.P.).

Following conclusion are drawn from the present study findings

- Low back pain among women decreases after performing Single Leg Glute Bridge exercise.

- Pre-test mean and SD were 5.33 & 1.32 respectively whereas posttest mean SD were 4.06 & 1.25, with t- Test value 15.42, df 29, tabulated value 2.00. These reading indicate the effectiveness of Single-leg Glute Bridge Exercise on Low Back Pain among women attending
- Use of Single leg Glute exercise can be helpful in reducing low back pain and can improve day to day activity.

Implications:

Based on the findings of the present study implications for nursing practice are stated below:

The researcher has derived the following implication from the study results, which are of vital concern to the field of nursing service, nursing administration, nursing education and nursing research.

- Nursing demonstration of procedure regarding effective use of Single-leg Glute Bridge Exercise on Low Back Pain among women can be done.
- Nursing services department can arrange health education programmes and continuous session of such activity for teaching the patients correct use of Single-leg Glute Bridge Exercise to patients suffering from low back pain.

Nursing Education:

Nursing students must be encouraged to utilize their knowledge on promotive measure by health education and demonstration in hospital.

Nursing Administration:

- Administrators should take initiative action to update the knowledge of nursing personnel regarding Single-leg Glute Bridge Exercise in improvement of Low Back Pain and reducing the Pain among women by in service education.
- Nurse administrators can conduct workshop and seminar on Single-leg Glute Bridge Exercise for Low Back pain to all level of nursing personnel in the hospital.

Nursing Research:

Evidence based practice helps the nurses to enrich them in knowledge and practice. Nursing researcher should be directed towards exploring the advantages of Single-leg Glute Bridge Exercise.

The present study revealed that the practice of Single-leg Glute Bridge Exercise should be encouraged in order to decrease the Low back Pain among women patient. The findings of the present study shall provide a baseline data for research studies to be conducted in future on larger scale.

Limitations:

- Study sample is limited to 30 women.
- The study is limited only to women patients with complain of Low back Pain those who are attending orthopedic OPD in People's hospital Bhopal.
- The present study is limited to only one group; no control group adopted for the study.

Recommendations:

Based on research studies it can be better understood that Single Leg Glute Bridge Exercise helps in strengthening the muscle as well as its also proven to be a good remedy to decrease the Low Back Pain among women patients.

- ❖ This study can be conducted with larger number of samples.
- ❖ Also can be done on male patients.
- ❖ Patients can be encouraged to continue Single Leg Glute Bridge Exercise in order to have long term results.

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