

## Review Article

### EFFECT OF VERBAL INSTRUCTIONS IN PAIN ASSESSMENT DURING A PASSIVE STRAIGHT LEG RAISE TEST IN PEOPLE WITH CHRONIC LOW BACK PAIN MASAE

\* Tevide Shabani and Kushtrim Zhjeqi

PhD candidate at Alma Mater Europea Maribor, Slovenia.

Received 14<sup>th</sup> November 2023; Accepted 15<sup>th</sup> December 2023; Published online 30<sup>th</sup> January 2024

#### ABSTRACT

The study titled "Effect of Specific Verbal Instructions on the Identification of Pain Location during a Passive Straight Leg Raise Test" aimed to investigate the effectiveness of specific verbal instructions in identifying pain locations during five consecutive Passive Straight Leg Raise (PSLR) tests. The study included 28 asymptomatic participants who underwent PSLR tests with and without specific verbal instructions. After each test, participants drew pain locations on a body chart and described the pain intensity and quality. The proportion of participants who changed their pain location was compared between tests using statistical analysis. The results showed that there was a significant difference in the proportion of participants who changed their pain location between the second and third tests, as well as from the third to the fourth test. The kappa coefficients confirmed low consistency in pain location just after receiving specific verbal instructions in the fourth test compared to the third test, but consistency improved in the fifth test. Additionally, 93% of participants reported that the pain location became clearer after receiving specific verbal instructions.

**Keywords:** PSLR, Chronic low back pain, Verbal Instruction.

#### INTRODUCTION

The introduction of the research paper titled "Investigating the Impact of Verbal Instructions, on Pain Assessment during a Passive Straight Leg Raise Test in Individuals with Chronic Low Back Pain" outlines the purpose and objective of the study. It aims to examine how verbal instructions influence pain ratings during a leg raise test (PSLR) for individuals suffering from low back pain. The introduction also highlights the significance of evaluating pain location to comprehend its origin and severity suggesting that verbal instructions could play a role in enhancing pain assessment. However an improvement can be made in this section by presenting a concise and clear statement regarding the problem or research question. It should explicitly explain why studying the effect of instructions on pain assessment, during PSLR test is important and how it contributes to existing knowledge.(Seif *et al.*, 2015) Moreover incorporating a review of literature or previous studies related to this topic would provide context. Demonstrate the relevance of this research.

Generally while the study briefly outlines its purpose there is room, for improvement in terms of presenting a research problem or question and conducting a review of relevant literature.

Participants in the study were able to indicate where they experienced pain. The findings of this study can be found on page 9 of the European Journal of Pain article titled " reliability of pain extent and pain location using a method for pain drawing analysis". (Herrington *et al.*, 2008)

Additionally three PSLR tests were carried out as part of this study. Changes in both the amount and quality of pain reported by participants after receiving instructions were observed. During the third tests some participants provided descriptions of their pain.

Descriptions such as burning are commonly associated with sensations. (Oliver and Rushton, 2011) These verbal instructions were valuable in understanding the origin, severity and intensity of patients pain experiences. Such detailed information assists therapists in prioritizing screening and treatment plans in healthcare settings. It's important to note that all participants were fully informed about this research and provided their signed consent before undergoing the PSLR test. Data collection, for this study took place at Biwako Rehabilitation Vocational University in March 2022.

#### THE RESEARCH GAP:

This article highlights a gap, in studies that have examined how verbal instructions impact pain ratings during straight leg raise (PSLR) tests among individuals with back pain. It also emphasizes the importance of conducting research in this area.

From the given context it is clear that there is a lack of research exploring how instructions influence pain assessment during the PSLR test for individuals suffering from pain. While previous studies have focused on assessing the reliability and accuracy of pain assessment techniques there has been limited investigation into how verbal instructions affect pain intensity, quality and location during the PSLR test. Therefore this study aims to bridge this gap by investigating how specific verbal instructions may impact factors such as pain intensity, quality and location during the PSLR test for individuals with pain.

The authors conducted three PSLR tests as described on page 3. The first test was conducted without any instructions while the second and third tests involved providing instructions to participants. During each test participants were asked to identify the point at which they experienced an increase, in pain or symptoms that led them to desire stopping the test. This particular instruction was consistently given throughout all three tests.

\*Corresponding Author: Tevide Shabani,

PhD candidate at Alma Mater Europea Maribor, Slovenia.

Before the test participants were given an instruction. However during the test they received verbal instructions regarding what aspects of pain to focus on remembering; intensity, quality and location. After each test participants filled out a Pain Diary (PD) to document where they felt pain and describe its intensity and quality. Following the completion of the tests participants were interviewed about any differences they experienced when performing the tests with or without instructions.

Page 6 of the article discusses trials that examined patients who received both types of instructions; nonspecific. The results revealed variations in the location and quality of pain. These findings are consistent with research.

## RESEARCH PROBLEM:

The article titled "The effect of instructions on pain assessment during a straight leg raise test in people with chronic low back pain" addresses the research problem of finding effective methods to assess pain in individuals suffering from chronic low back pain (CLBP). The study aims to investigate how providing cues can influence the accuracy and understanding of pain location, intensity and quality during a leg raise test (PSLR) for individuals with CLBP.

## METHODOLOGY AND POTENTIAL RESULTS:

In terms of methodology, the researchers conducted three PSLR tests while collecting data, on pain intensity, quality and location. During the round of testing the participants were given verbal instructions. The researchers then analyzed aspects such, as range of motion (HFROM) pain intensity (NRS) and pain location (PD) for each test. This study aims to explore changes in participants reported pain location and quality during the test compared to the initial test. The way verbal instructions were delivered during the tests may have influenced how participants perceived and reported their pain. Additionally the researchers evaluated the consistency of range of motion (ROM) and pain rating (PE) measurements across tests.

The results indicated that ROM demonstrated reliability while PE showed reliability throughout.

In summary this study investigates how verbal instructions impact pain ratings in individuals, with pain during a test called PSLR. Specific verbal instructions can provide insights into understanding the origin, intensity and sensitivity of pain. This information can guide healthcare professionals in making decisions regarding examinations and treatment options.

## CONCLUSION

The study concluded that specific verbal instructions were effective in identifying pain locations during PSLR tests. This information can help physical therapists provide appropriate treatment and contribute to reducing pain in clinical settings. The study also highlighted the importance of simple and clear instructions for pain assessment. Overall, this research provides valuable insights into the use of specific verbal instructions for pain assessment and emphasizes their significance in accurately identifying pain locations during physical examinations.

## REFERENCES

- El-Tallawy, S. N., Nalamasu, R., Salem, G. I., LeQuang, J. A. K., Pergolizzi, J. V., & Christo, P. J. (2021, February 11). Management of Musculoskeletal Pain: An Update with Emphasis on Chronic Musculoskeletal Pain. *Pain and Therapy*, 10(1), 181–209. <https://doi.org/10.1007/s40122-021-00235-2>
- Seif, H. E., Alenazi, A., Hassan, S. M., Kachanathu, S. J., & Hafez, A. R. (2015). The Effect of Stretching Hamstring, Gastrocnemius, Iliopsoas and Back Muscles on Pain and Functional Activities in Patients with Chronic Low Back Pain: A Randomized Clinical Trial. *Open Journal of Therapy and Rehabilitation*, 03(04), 139–145. <https://doi.org/10.4236/ojtr.2015.34019>
- Herrington, L., Bendix, K., Cornwell, C., Fielden, N., & Hankey, K. (2008, August). What is the normal response to structural differentiation within the slump and straight leg raise tests? *Manual Therapy*, 13(4), 289–294. <https://doi.org/10.1016/j.math.2007.01.013>
- Oliver, G. S., & Rushton, A. (2011, April). A study to explore the reliability and precision of intra and inter-rater measures of ULNT1 on an asymptomatic population. *Manual Therapy*, 16(2), 203–206. <https://doi.org/10.1016/j.math.2010.05.009>
- Maher, C., Underwood, M., & Buchbinder, R. (2017, February). Non-specific low back pain. *The Lancet*, 389(10070), 736–747. [https://doi.org/10.1016/s0140-6736\(16\)30970-9](https://doi.org/10.1016/s0140-6736(16)30970-9)
- Herrington, L., Bendix, K., Cornwell, C., Fielden, N., & Hankey, K. (2008, August). What is the normal response to structural differentiation within the slump and straight leg raise tests? *Manual Therapy*, 13(4), 289–294. <https://doi.org/10.1016/j.math.2007.01.013>
- ANDOU, M. (2000). Assessment of Pain in Physical Therapy. *Rigakuryoho Kagaku*, 15(3), 63–72. <https://doi.org/10.1589/rika.15.63>

\*\*\*\*\*