INTERNATIONAL JOURNAL OF
PHYSICAL THERAPY RESEARCH & PRACTICE
AN OFFICIAL JOURNAL OF SAUDI PHYSICAL THERAPY ASSOCIATION

Narrative Review

Effectiveness of Manual Therapy in the Management of Sacroiliac Joint Pain and Disability: A Narrative Review

Abdullah Dhafer Alshehri[1*], Amr Ahmad Fallatah[2], Majed Abdulrahman Alghamdi[3], Khalid Atiah Alzahrani[3], Rayan Hamad Baeti[1], Saeed Saad Alyazidi[4], Eyad Saeed Alharbi[5]

1. Physical Therapy Department, Security Forces Hospital, Ministry of Interior, Riyadh, Saudi Arabia.
2. Physical Therapy Department, Ajyad Emergency and Alharam Hospital and Centers, Makkah Health Cluster Makkah, Saudi Arabia.
3. Physical Therapy Department, Comprehensive Rehabilitation Center, Ministry of Human Resources and Social Development, Jeddah, Saudi Arabia.
4. Physical Therapy Department, Asser Central Hospital, Abha, Saudi Arabia.
5. Physical Therapy Department, European Medical Center, Jeddah, Saudi Arabia.

*Corresponding Author: phd.mmkrayes@hotmail.com

DOI: https://doi.org/10.62464/ah27hy14

Abstract

Background: Sacroiliac joint pain and disability is a significant and expensive condition that drives up healthcare expenses. Ten to twenty-five percent of people who suffer low back pain (LBP) have SIJ listed as a contributing factor. **Objective:** The purpose of this review is to investigate the use of manual therapy for the management of SIJ syndrome, identify any gaps in the literature on the topic, and offer suggestions for future research in the area. **Methods:** This study was conducted as a narrative review. A search for relevant studies in English has been conducted across several databases, including PubMed NCBI, Trip Medical Database as well as PEDro – Physiotherapy Evidence Database, for randomized controlled trials (RCTs) published from 1992 to July 2024. The search included the use of manual therapy in SIJ dysfunction and pain management. **Results:** Nine RCTs were included. Manual therapy was shown to be the preferable course of treatment for pain and function disability when compared to alternative forms of therapy **Conclusion:** All of the studies in this review demonstrated the effectiveness of manual therapy in treating SIJ patients' pain and improving their functioning.

Keywords: Manual therapy, Sacroiliac joint pain, Sacroiliac joint, Narrative review.

Article info : Received: **Jan. 01, 2026,** Accepted: **Jan. 25, 2026 ,** Published: **Jan. 31, 2026**

To Cite: Alshehri AD et al. Effectiveness of Manual Therapy in the Management of Sacroiliac Joint Pain and Disability: A Narrative Review. (2026). International Journal of Physical Therapy Research & Practice, 5(1), 126-131. https://doi.org/10.62464/ah27hy14

Introduction

Low back pain (LBP) places a substantial financial burden on healthcare systems, as well as reducing a person's quality of life (Vos et al., 2012). Previous study has shown that LBP could be related to SIJ impairment, with a prevalence varying between 13.8% and 47.9% (Van der Wurff et al., 2006a). The primary manifestation of sacroiliac syndrome is pain around the SIJ, although such pain may also be felt in the groin, medial buttocks, and back of the thigh (Van der Wurff et al., 2000). The gold standard for diagnosing SIJ pain is a guided injection, which causes a favorable reaction to an anesthetic with a localized effect (Van der Wurff et al., 2006b).

Manual therapy (MT) is a cornerstone of physiotherapy for LBP. A substantial body of evidence supports the effectiveness of MT for reducing pain and improving function in patients with non-specific LBP (Fersum et al., 2010; Hidalgo et al., 2014; Kuczynski et al., 2012; Rubinstein et al., 2011; Van Middelkoop et al., 2011). However, the evidence base for non-specific LBP cannot be directly extrapolated to SIJ dysfunction, which represents a distinct clinical subgroup.

Despite the frequent clinical use of MT for suspected SIJ pain, there is a notable gap in the literature regarding its specific efficacy for this condition. A previous systematic review by Bharti et al. (2016) examined multiple interventions for SIJ dysfunction and included only four studies on manual therapy published between 2001 and 2015, concluding that the evidence was limited. This highlights the importance of conducting a review that specifically examines the impacts of MT on SIJ dysfunction.

Therefore, this review examined studies that focused on the effectiveness of manual therapy in groups of patients suffering from SIJ using valid clinical tests and radiological findings, thus setting it apart from other studies in this field. The research question addressed in this study is as follows: How effective is manual therapy in managing pain and improving function in those with SIJ dysfunction?

Methodology

Study design

This study was conducted as a narrative review.

Search strategy

Several databases were searched in this review, including PubMed NCBI, Trip Medical Database as well as PEDro – Physiotherapy Evidence Database. Additional sources (i.e., Cochrane Collaboration, Science Direct, and Google Scholar) were searched to ensure that no important studies were missed. References were also obtained for the selected studies through electronic and manual searches.

The keywords "randomized controlled trial", "random allocation", "controlled clinical trial" and "random*" were employed to guide the first search and to ensure that only RCTs were identified. The search was conducted for articles published from 1992 to July 2024.

Data extraction

The last search was carried out on 10th July 2024. The search yielded 512 articles, of which 471 were removed due to duplicate entries (n=133) and the inclusion/exclusion criteria (n=338). The remaining 14 studies were subject to full-text assessments, after which only nine remained.

Three studies examined the effectiveness of manual therapy in treating and managing SIJ impairment (Kamali & Shokri, 2012; Rana & Bansal, 2009; Wreje et al., 1992), while the remaining six compared manual therapies with different

treatment approaches in SIJ impairment (Dhinkaran et al., 2011; Dogan et al., 2021; Hussein et al., 2022; Nejati et al., 2019; Shearar et al., 2005; Visser et al., 2013).

Ethical Approval

As this study is a narrative review of previously published literature, it did not involve direct interaction with human participants. Therefore, institutional review board approval and informed consent were not applicable.

Results

Summary of Included Randomized Controlled Trials on Manual Therapy for SIJ Dysfunction are presented in Table 1.

Table 1. Summary of Included Randomized Controlled Trials on Manual Therapy for SIJ Dysfunction.

Author(s) & Year	Participants (n)	Intervention(s)	Comparison Group(s)	Key Outcomes & Findings
Kamali & Shokri (2012)	32 females	SIJ HVLA manipulation; SIJ + Lumbar HVLA manipulation	Groups compared to each other (no control)	Both groups showed significant short-term reduction in pain (VAS) and disability (ODI).
Shearar et al. (2005)	19 (data from 16)	Manual and mechanical force manipulation	Placebo (inactive device)	Significant improvement in pain and function for the manipulation group.
Rana & Bansal (2009)	45	MET + Exercise; Maitland Mobilization + Exercise	Control (no intervention)	Both MT groups were superior to control. MET showed slightly greater improvement in function (ODI) than MM.
Wreje et al. (1992)	39	MET and segmental mobilization	Placebo (massage)	No significant difference between groups at 3-month follow-up.
Visser et al. (2013)	51	Intra-articular SIJ steroid injections	Manual therapy (mobilization / manipulation)	Injections provided greater pain relief at 1 month, but no significant difference at 3 and 12 months.
Dhinkaran et al. (2011)	30	MET	Conventional physiotherapy (IFT, exercises)	MET group showed significantly greater improvement in pain and function.
Dogan et al. (2021)	60	Mobilization + Exercise	Exercise alone	The mobilization group showed significantly greater improvements in pain, disability, and quality of life.
Hussein et al. (2022)	45	Strain-Counterstrain + Exercise	MET + Exercise	Both groups improved significantly; no significant difference between the two techniques.
Nejati et al. (2019)	60	Manipulation + Exercise	Exercise alone	The manipulation group showed significantly greater improvement in pain and function at 1 and 3 months.

Abbreviations: SIJ = Sacroiliac Joint; HVLA = High-Velocity, Low-Amplitude; VAS = Visual Analogue Scale; ODI = Oswestry Disability Index; MET = Muscle Energy Technique; MM = Maitland Mobilization; IFT = Interferential Therapy.

Discussion

Study findings

Three of the studies examined the effectiveness of using manual treatment to manage SIJ impairment (Kamali & Shokri, 2012; Rana & Bansal, 2009; Wreje et al., 1992). Furthermore, the remaining six studies explored the effectiveness of combining manual therapy with other treatments. The most significant valid outcomes for treatment effectiveness were determined to be pain and functional impairment (Szadek et al., 2009). The VAS and NRS were employed to evaluate pain, while functional disability and motion range was evaluated using the ODI and goniometry, respectively.

Limitations

A qualitative assessment of the included studies reveals several methodological concerns that limit the strength of the evidence. A predominant issue is the small sample size in most trials, which increases the risk of Type II errors and limits the generalizability of the findings. Furthermore, the diagnostic criteria for SIJ dysfunction were inconsistent. While some studies used a cluster of provocation tests, very few used the gold standard of a diagnostic SIJ block, potentially leading to the inclusion of patients whose pain may not have originated from the SIJ.

A key distinction to be made is between short-term and long-term effectiveness. The majority of studies in this review had follow-up periods of one to three months. While they demonstrated significant short-term benefits, the long-term durability of these effects is largely unknown. The study by Wreje et al. (1992), one of the few with a longer follow-up, found no significant difference at three months, although its methodology has been critiqued. This highlights a critical gap in the literature and underscores the need for studies with follow-up periods of at least 6 to 12 months to assess whether the short-term gains are maintained.

Future recommendations

For future research, this review highlights several clear needs. There is a strong requirement for high-quality, large-scale RCTs with robust methodology. Future trials should employ strict diagnostic criteria, such as a standardized cluster of provocation tests with a confirmatory diagnostic block, to ensure a homogenous patient population. It is also crucial to incorporate long-term follow-up assessments at 6, 12, and even 24 months to evaluate the durability of treatment effects. Furthermore, head-to-head comparisons between different manual therapy techniques (e.g., manipulation vs. mobilization vs. MET) and the consistent use of standardized outcome measures for pain, function, and quality of life are essential to advance the field.

Conclusion

All of the studies in this review demonstrated the effectiveness of manual therapy in treating SIJ patients' pain and improving their functioning. However, the evidence for this finding was also restricted to a small number of studies, a small sample size, and a brief period of follow-up. Therefore, while manual therapy can be considered a reasonable component of a multimodal treatment plan for SIJ pain, firm conclusions regarding its definitive efficacy and long-term benefits await further high-quality research.

Author Contributions

All authors significantly contributed to the work reported, including conception, study design, execution, data acquisition, analysis, and interpretation. They actively participated in

drafting, revising, or critically reviewing the manuscript, provided final approval of the version to be published, agreed on the journal submission, and accepted accountability for all aspects of the work.

Data Availability Statement

The authors will transparently provide the primary data underpinning the findings or conclusions of this article, without any unjustified reluctance. If need from editorial team.

Funding

The author/s have not received any funding for. This study.

Conflicts of Interest

The authors declare no potential conflicts of interest regarding the publication of this paper.

Declaration of generative AI and AI-assisted technologies

The author utilized AI tools to enhance the language quality and address any grammatical issues while preparing the manuscript. Following the use of this tool, the author carefully reviewed and edited the content as necessary and assumes full responsibility for the accuracy and integrity of the published work.

Reference

Bharti, N., Arora, M., & Anand, P. (2016). Effectiveness of therapeutic interventions in sacroiliac joint dysfunction: A systematic review. International Journal of Physiotherapy and Research, 4(3), 484-488.

Cormier, G., Patenaude, J., Massé-Alarie, H., Chouinard, A., & Schneider, C. (2021). Lumbopelvic motor control and sacroiliac joint pain: A scoping review. Journal of Sport Rehabilitation, 30(3), 400-412.

Dhinkaran, M., Sareen, A., & Arora, T. (2011). Comparative analysis of muscle energy technique and conventional physiotherapy in treatment of sacroiliac joint dysfunction. Indian Journal of Physiotherapy and Occupational Therapy, 5, 127-130.

Dogan, N., Sahbaz, T., & Diracoglu, D. (2021). Effects of mobilization treatment on sacroiliac joint dysfunction syndrome. Revista da Associação Médica Brasileira, 67, 1003-1009.

Dunning, J. R., Butts, R., Perreault, T., Mettille, J., & Nuñez, F. (2016). Upper cervical and upper thoracic spine manipulation versus mobilization and exercise in patients with mechanical neck pain: A multi-center randomized clinical trial. BMC Musculoskeletal Disorders, 17(1), 64.

Evjenth, O., & Hamberg, J. (1984). Muscle stretching in manual therapy: The spinal column and the temporo-mandibular joint. Alfta Rehab.

Fersum, K. V., Dankaerts, W., O'Sullivan, P. B., Maes, J., Skouen, J. S., Bjordal, J. M., & Kvale, A. (2010). Integration of subclassification strategies in randomised controlled clinical trials evaluating manual therapy treatment and exercise therapy for non-specific chronic low back pain: A systematic review. British Journal of Sports Medicine, 44(14), 1054-1062.

Hidalgo, B., Detrembleur, C., Hall, T., Mahaudens, P., & Nielens, H. (2014). The efficacy of manual therapy and exercise for different stages of non-specific low back pain: An update of systematic reviews. Journal of Manual & Manipulative Therapy, 22(2), 59-74.

Hussein, Y. I., Hassan, K. A., & EL-Nahass, B. G. E. (2022). Strain-counterstrain versus muscle energy technique in sacroiliac joint dysfunction: A randomized controlled trial. International Journal of Health Sciences, 6, 8738-8754.

Kamali, F., & Shokri, E. (2012). The effect of two manipulative therapy techniques and their outcome in patients with sacroiliac joint syndrome. Journal of Bodywork and Movement Therapies, 16(1), 29-35.

Kuczynski, J. J., Schwieterman, B., Columber, K., Knupp, D., Shaub, L., & Cook, C. E. (2012). Effectiveness of physical therapist administered spinal manipulation for the treatment of low back pain: A systematic review of the literature. International Journal of Sports Physical Therapy, 7(6), 647-662.

Miller, P. J., & Jones-Harris, A. R. (2005). The evidence-based hierarchy: Is it time for change? A suggested alternative. Journal of Manipulative & Physiological Therapeutics, 28(6), 453-457.

Mizuno, K., & Tsuji, H. (1993). Sacroiliac joint dysfunction: Evaluation and treatment. Orthopedic Surgery and Traumatology, 36, 1-6.

Nejati, P., Safarcherati, A., & Karimi, F. (2019). Effectiveness of exercise therapy and manipulation on sacroiliac joint dysfunction: A randomized controlled trial. Pain Physician, 22(1), 53-61.

Rana, K., & Bansal, N. (2009). Comparative analysis on the efficacy of GD Maitland's concept of mobilization & muscle energy technique in treating sacroiliac joint dysfunction. Indian Journal of Physiotherapy and Occupational Therapy, 3(2), 18-21.

Rubinstein, S. M., van Middelkoop, M., Assendelft, W. J., de Boer, M. R., & van Tulder, M. W. (2011). Spinal manipulative therapy for chronic low-back pain. Cochrane Database of Systematic Reviews, 2011(2), CD008112.

Shearar, K. A., Colloca, C. J., & White, H. L. (2005). A randomized clinical trial of manual versus mechanical force manipulation in the treatment of sacroiliac joint syndrome. Journal of Manipulative and Physiological Therapeutics, 28(7), 493-501.

Subahi, D., Sluijter, M. E., Colclough, K., Sluijter, J., & Eldabe, S. (2022). Sacroiliac joint pain: Anatomy, diagnosis and treatment. Nature Reviews Rheumatology, 18(12), 719-732.

Szadek, K. M., van der Wurff, P., van Tulder, M. W., Zuurmond, W. W., & Perez, R. S. (2009). Diagnostic validity of criteria for sacroiliac joint pain: A systematic review. The Journal of Pain, 10(4), 354-368.

Van der Wurff, P., Buijs, E. J., & Groen, G. J. (2006a). A multitest regimen of pain provocation tests as an aid to reduce unnecessary minimally invasive sacroiliac joint procedures. Archives of Physical Medicine and Rehabilitation, 87(1), 10-14.

Van der Wurff, P., Buijs, E. J., & Groen, G. J. (2006b). Intensity mapping of pain referral areas in sacroiliac joint pain patients. Journal of Manipulative and Physiological Therapeutics, 29(3), 190-195.

Van der Wurff, P., Meyne, W., & Hagmeijer, R. (2000). Clinical tests of the sacroiliac joint. A systematic methodological review. Part 1: Reliability. Manual Therapy, 5(1), 30-36.

Van Middelkoop, M., Rubinstein, S. M., Kuijpers, T., Verhagen, A. P., Ostelo, R., Koes, B. W., & van Tulder, M. W. (2011). A systematic review on the effectiveness of physical and rehabilitation interventions for chronic non-specific low back pain. European Spine Journal, 20(1), 19-39.

Visser, L. H., Woudenberg, N. P., de Bont, J., van Eijs, F., Verwer, K., Jenniskens, H., & van Kleef, M. (2013). Treatment of the sacroiliac joint in patients with leg pain: A randomized-controlled trial. European Spine Journal, 22(10), 2310-2317.

Vos, T., Flaxman, A. D., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., ... & Abraham, J. (2012). Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990–2010: A systematic analysis for the Global Burden of Disease Study 2010. The Lancet, 380(9859), 2163-2196.

Wreje, U., Nordgren, B., & Åberg, H. (1992). Treatment of pelvic joint dysfunction in primary care—A controlled study. Scandinavian Journal of Primary Health Care, 10(4), 310-315.