

Practicing emerging therapeutic interventions without proper knowledge: A growing concern among physical therapists

Sana Shahzad¹, Faryal Shoukat¹, Komal Komari²

Copyright © 2024 The Author(s). Published by Foundation University Journal of Rehabilitation Sciences

Sir,

Clinical practice should be based on the latest credible evidence and guidelines. At the same time, hands-on experience is essential for dealing with daily challenges, even if it's not explicitly mentioned in research. While research-based knowledge is valuable, it may not always provide immediate solutions for practical situations.(1)

Emerging techniques refer to innovative approaches for managing pain and treating various musculoskeletal conditions, such as dry needling and extracorporeal shock wave therapy. Dry needling employs thin, needle-like tools to stimulate specific points in muscles, connective tissue, and fascia, aiming to alleviate pain and enhance movement. However, it carries various risks, ranging in severity from mild to severe adverse events. Mild adverse events, occurring at a frequency of 1-10%, include bruising, bleeding, nausea, pain, fatigue, temporary worsening of symptoms, and dizziness. Moderate adverse events (frequency: 0.1-1%) encompass prolonged pain, nerve injury, headache, vomiting, forgotten needles, extreme fatigue, and seizures. Severe adverse events (frequency: 0.1-1%) involve pneumothorax/haemothorax, infection, broken needles, and cardiac tamponade. Reports indicate that 36.7% of dry needling treatments result in minor potential negative events namely bruising (7.7%), pain (5.9%) and bleeding (16%) being most common.(2) Serious adverse effects may include prolonged symptom worsening, fainting, forgotten needles in the skin, flu-like symptoms, infections, excessive bleeding, and weakness or numbness in the legs.(3) Another emerging therapeutic intervention

widely used by physiotherapists is extracorporeal shock wave therapy (ESWT), a non-invasive treatment for musculoskeletal disorders. ESWT utilizes mechanical energy to induce changes in cellular structures, triggering reactions in cell components such as mitochondria, endoplasmic reticulum, and intracellular vesicles. This enzymatic response enhances the healing process.(4) Potential risks and side effects of extracorporeal shockwave therapy include local effects hematoma formation, pain at applicator site, skin bruising, skin erythema, nerve irritation with numbness or tingling and superficial edema and systemic effects migraine and headache.(5)

In conclusion, we emphasize on the critical need for evidence-based clinical knowledge when employing emerging therapies like dry needling and shock wave therapy. While these techniques offer potential benefits for musculoskeletal issues, they also pose significant risks and potential side effects. The overarching concern among physical therapists revolves around the application of these therapies without proper knowledge, underscoring the necessity for comprehensive education and expertise to ensure safe and effective use in clinical settings.

Keywords: Dry needling, Extracorporeal shock wave therapy, Emerging therapeutic interventions.

Disclaimer: None to declare.

Conflict of interest: None to declare.

Source of funding: None to declare.

References:

1. Varkey B. Principles of clinical ethics and their application to practice. *Medical Principles and Practice*. 2021 Jun 4;30(1):17-28..
2. Valdes VR. Dry Needling in Physical Therapy Practice: Adverse Events. *Int J Phys Ther Rehab*. 2019;5(157):2.
3. Boyce D, Wempe H, Campbell C, Fuehne S, Zylstra E, Smith G, Wingard C, Jones R. Adverse events associated with therapeutic dry needling. *International journal of sports physical therapy*. 2020 Feb;15(1):103.

Affiliations: ¹Ziauddin College of Rehabilitation Sciences, Ziauddin University, Karachi, Pakistan ²Abu Zafar Institute of Medical Sciences, Karachi, Pakistan.

Correspondence: Sana Shahzad
Email: saniashahzad098@gmail.com

Received: August 26th, 2023; **Acceptance:** January 5th, 2024

DOI: <https://doi.org/10.33897/fujrs.v4i1.373>

How to Cite: Shahzad S, Shoukat F, Komari K. Practicing emerging therapeutic interventions without proper knowledge: A growing concern among physical therapists. *Foundation University Journal of Rehabilitation Sciences*. 2024 Jan;4(1):64-65.

-
4. Auersperg V, Trieb K. Extracorporeal shock wave therapy: an update. EFORT open reviews. 2020 Oct;5(10):584. practices for extracorporeal shockwave therapy in musculoskeletal medicine: Clinical application and training consideration. Pm & R. 2022 May;14(5):611.
 5. Tenforde AS, Borgstrom HE, DeLuca S, McCormack M, Singh M, Hoo JS, Yun PH. Best
-

Copyright Policy

All Articles are made available under a Creative Commons "Attribution-NonCommercial 4.0 International" license. Copyrights on any open access article published by FUJRS are retained by the author(s). FUJRS is an open-access journal that allows free access to its published articles, in addition, to copy and use for research and academic purposes; provided the article is correctly cited. FUJRS does not allow commercial use of the articles published in FUJRS. All articles published represent the view of the authors and do not reflect the official policy of FUJRS.