

Evidence-Based Comparison of Physical Therapists and Traditional Healers: Distinguishing Science from Quackery

Sir,

The hunt for effective interventions in medicine has given rise to various approaches, from evidence-based medical procedures to dubious methods promoted by traditional healers and quacks. For example, physical therapy after fractures or haphazard massages in conditions, such as stroke and nerve diseases by unqualified, unskilled masseurs or quacks has attracted much attention. The distinction between quackery and methods based on science has become a major public concern.¹

If we talk about fractures, the stages of the complex biological processes of bone healing include, the inflammatory phase, formation of soft calluses, hard calluses, and remodelling, etc.² By improving blood flow, lowering inflammation, and promoting bone tissue healing, scientifically proven techniques such as internal fixations of bony segments and external fixations by plaster of paris (POP) cast help to accelerate these phases. Subsequently, physical therapy contributes by using a variety of approaches, such as passive, active, assistive, and strengthening exercises adjacent to the fracture site, to reduce swelling and pain and improve range of motion.

Professional physical therapists receive a formal 5-year degree programme called "Doctor of Physical Therapy" (DPT) that consists of 175 credit hours and afterwards they are trained in teaching hospitals under the supervision of qualified physical therapists and work with multidisciplinary teams of professionals including doctors, surgeons, nurses, psychologists, physical therapy assistants, etc. On the other hand, quacks lack formal education and training, and their approaches are very haphazard, risky, and without any evidence-based proofs. In many low-and-middle-income countries, such as Pakistan, most of the quacks claim that they have inherited healing skills from their forefathers. They hide behind the irrational attitudes by stating that "We cannot share these methods openly in public because we are the sole owner of these skills as our fathers transferred them to us".

The drawbacks of quackery are delayed emergency care, worsening of minor injuries, malunions of fractures, disc slips due to faulty manipulatory techniques, swelling due to tight bandages, etc. These all occur because of the lack of awareness, low literacy rates, poor income, and some religious, cultural, or traditional beliefs. On the other hand, physical therapy approaches are backed by evidence as demonstrated by the positive impact of physical therapy on bone healing in patients with fractures.³

Similarly, several studies have explored the potential benefits of massage for pain management and muscle relaxation, but these findings do not necessarily translate into accelerated bone healing and there is a risk because such unskilled professionals can harm.⁴

Healthcare professionals must be on the lookout for the dangers of quackery and spread awareness regarding scientifically-based practices like physical therapy.⁵ More extensive studies are required to distinguish between physical therapy and quack medicine by empowering a strong government-supervised body of healthcare professionals (such as the Physical Therapy Council) and by improving and implementing laws against quacks, especially in the field of physical therapy.

COMPETING INTEREST:

The author declared no conflict of interest.

AUTHOR'S CONTRIBUTION:

RA: Drafted, edited, proofread, and approved the final version of the manuscript to be published.

REFERENCES

1. Sneaky snake oils in pain medicine masquerade as modern medicine. www.PainScience.com. Published March 24, 2021. Accessed September 11, 2023. <http://www.painscience.com/articles/pseudo-quackery.php>.
2. LaStayo PC, Winters KM, Hardy M. Fracture healing: Bone healing, fracture management, and current concepts related to the hand. *J Hand Ther* 2003; **16(2)**:81-93. doi:10.1016/S0894-1130(03)80003-0.
3. Maciel JS, Taylor NF, McIlveen C. A randomised clinical trial of activity-focussed physiotherapy on patients with distal radius fractures. *Arch Orthop Trauma Surg* 2005; **125(8)**: 515-20. doi:10.1007/s00402-005-0037-x.
4. Crawford C, Boyd C, Paat FC, Price A, Xenakis L, Yang E, et al. The impact of massage therapy on function in pain populations-A Systematic review and meta-analysis of randomized controlled trials: Part I, patients experiencing pain in the general population. *Pain Med* 2016; **17(7)**: 1353-75. doi: 10.1093/pm/pnw099.
5. Heald CB. The menace of quackery to physical medicine. *Br Med J* 1932; **2(3740)**:512-5. doi: 10.1136/bmj.2.3740.512.

Rana Arslan

Department of Physiotherapy, Laeeque Rafiq Institute of Health Sciences, Multan, Pakistan

Correspondence to: Dr. Rana Arslan, Department of Physiotherapy, Laeeque Rafiq Institute of Health Sciences, Multan, Pakistan

E-mail: ranaarslan2020@gmail.com

Received: September 12, 2023; Revised: November 23, 2023; Accepted: December 07, 2023

DOI: <https://doi.org/10.29271/jcpsp.2024.08.1006>

