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LETTER TO EDITOR Open Access

Comment of article "The pain ratio before and after the application of physiotherapy for dysfunction of temporomandibular joint"

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Dear editor,

I read the article titled "The pain ratio before and after the application of physiotherapy for dysfunction of temporomandibular joint" published in the Journal of Health Sciences (2024;14(3):120-126) by Hadžić et al. (1)

I found this article enlightening and interesting. It investigates the efficacy of physiotherapy interventions in alleviating pain associated with temporomandibular joint (TMJ) dysfunction. While the study contributes to the growing body of evidence supporting physiotherapy for TMJ disorders, it also assists dentists to include physiotherapy treatment as a part of the treatment in the patients with dysfunction of (TMJ). The article likely presents findings demonstrating a reduction in pain levels following physiotherapy interventions. This aligns with existing literature highlighting the potential benefits of various physiotherapy techniques, including manual therapy, exercise therapy, and patient education, in managing TMJ dysfunction. The limitations of the study include, firstly, a small sample size. Was the sample size of 28 participants sufficient to provide statistically significant results? A larger, more diverse sample would strengthen the generalizability of the findings (2). Second, the specific physiotherapy interventions employed need clear delineation. Were they standardized across all participants, or were individualized approaches utilized? This level of detail is essential for replication and comparison with other studies. Furthermore, the duration and frequency of the treatment sessions should be clearly stated. Understanding the "dosage" of physiotherapy is vital for understanding treatment effectiveness (3).

Thirdly, the outcome measures used to assess pain reduction require scrutiny. Was a visual analog scale or a numerical rating scale employed? The reliability and validity of these measures influence the interpretation of results. Moreover, focusing solely on pain relief may overlook other relevant aspects of TMJ dysfunction, such as improved jaw function, range of motion, and quality of life (4).

Finally, the study's control group (if present) and the presence of blinding are critical considerations. A well-designed control group allows for comparison and helps isolate the specific effects of the physiotherapy intervention. Ideally, participants and assessors should be blinded to the treatment allocation to minimize bias.

Employing standardized physiotherapy protocols allows for better comparison across studies. Clearly define the specific techniques used, their frequency, and duration. The development and validation of standardized TMJ physiotherapy protocols could significantly advance the field. Beyond pain reduction, future studies should incorporate a broader range of outcome measures, including measures of jaw function, range of motion, psychological well-being, and quality of life. Instruments like the Jaw Functional Limitation Scale can provide valuable insights beyond pain levels (5). Conducting studies comparing different physiotherapy approaches or comparing physiotherapy to other treatment modalities (e.g., medication, occlusal splints) would provide valuable information for clinical decision-making. Investigating the underlying mechanisms by which physiotherapy exerts its effects on the TMJ could provide a deeper understanding of its efficacy and inform the development of more targeted interventions. The integration of technology, such as virtual reality and motion analysis, may further enhance the effectiveness of physiotherapy interventions. Furthermore, a collaborative approach involving dentists, orthodontists, and physiotherapists is crucial to ensure patients receive the most comprehensive and effective care.

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REFERENCES

1. Hadžić L, Heidemann P, Bojičić S, Trtak N, Kaljik E, Hadžiomerović MA. Pain ratio pre- and post-physiotherapy in TMJ dysfunction. J Health Sci 2024;14(3):120-6.
2. Faber J, Fonseca LM. How sample size influences research outcomes. Dental Press J Orthod 2014;19(4):27-9.
https://doi.org/10.1590/2176-9451.19.4.027-029.ebo

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3. Goubar A, Ayis S, Beaupre L, Cameron ID, Milton-Cole R, Gregson CL, et al. The impact of the frequency, duration and type of physiotherapy on discharge after hip fracture surgery: A secondary analysis of UK national linked audit data. Osteoporos Int 2022;33(4):839-50.

https://doi.org/10.1007/s00198-021-06195-9

4. Bielewicz J, Daniluk B, Kamieniak P. VAS and NRS, same or different? Are visual analog scale values and numerical rating scale equally viable tools for assessing patients after microdiscectomy? Pain Res Manag 2022;2022:5337483.

https://doi.org/10.1155/2022/5337483

5. Pattanaik S, John MT, Chung S, Keller S. Differential item functioning of the jaw functional limitation scale. J Oral Facial Pain Headache 2023;37(1):33-46.

https://doi.org/10.11607/ofph.3026