SUBGROUP ANALYSIS IN SYSTEMATIC REVIEWS OF PHYSICAL THERAPY INTERVENTIONS PUBLISHED IN HIGH IMPACT JOURNALS: A METAEPIDEMIOLOGICAL STUDY

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Background: Systematic reviews (SRs) focusing on physical therapy interventions published in high-impact journals have dramatically increased in recent years. These SRs are considered to be reliable. However, the analyses recorded in the protocols are not always reported in published SRs, with complete absence, partial reduction in the number of analyses, and even the inclusion of new subgroups not previously registered.

Objectives: To evaluate the frequency with which physical therapy intervention SRs, published in high-impact journals, perform subgroup analyses that are previously reported in protocols or add unplanned subgroup analyses that are not previously reported in published SRs.

Methods: The Rayyan software tool was used to analyze all SRs published between March 2020 and August 2022 in the 10 highest impact rehabilitation journals according to the Journal Citation Reports (JCR). Disagreements were resolved by an experienced third reviewer. Subgroup analysis reported in the protocol, and reported in the final publications were compared using descriptive statistics.

Results: 3,032 records were identified, of which 2,927 were excluded for not meeting the inclusion criteria. 105 SRs published in high-impact journals were included. Of these, 60 (57.1%) reported subgroup analyses that were consistent with what was recorded in the protocol; 29 (27.6%) did not report any of the previously registered analyses, and 16 SRs (15.3%) added unplanned analyses in the protocol, with an average of 1.6 new subgroup analyses included in the final publication.

Conclusion: The findings indicate that 43% of SRs present significant discrepancy between the subgroup analyses planned in registered protocols and those reported in published SRs, even in high-impact scientific journals. Thus, it is essential that SRs conducted in the physical therapy field and, consequently, raise awareness for greater care in the planning and execution of studies that are transparent and faithful to previously registered protocols, as well as greater caution in interpreting SR results, even if they come from sources considered to be reliable.

Keywords: Knee osteoarthritis, Rheumatology, Physiotherapy

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