

# Analysis of the Highest-Ranking Musculoskeletal Medicine Articles by Altmetric Attention Scores in Rehabilitation Journals

## A cross-sectional study

Samiran Bhattacharya, MD,  
William Niehaus, MD

### BACKGROUND:

Alternative metrics are increasingly recognized as an important element of a scholarly article's impact as they capture data related to the interest in, and dissemination of, a piece of research. The Altmetric Attention Score, the most ubiquitous alternative metric, quantifies how much public attention a scholarly article receives across several online resources not limited to news outlets, research blogs, reference managers, datasets, patents, Wikipedia and social networking services such as Twitter, Facebook and more. We used alternative metrics to characterize the most disseminated research articles related to musculoskeletal medicine in physical medicine and rehabilitation (PM&R)

#### The Colors of the Donut

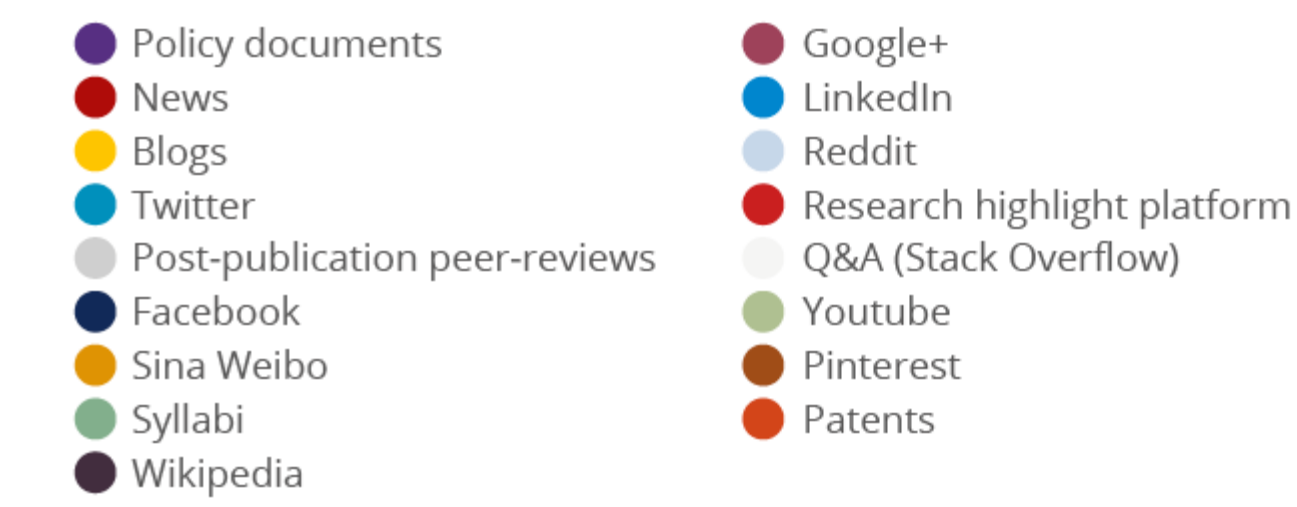


Figure 1. The Altmetric Donut. Donut colors represent different sources of attention. Amount of each color changes based on sources an article receives attention from. Central number is the Altmetric score - automatically calculated, weighted approximation of the attention an article has received. <https://www.altmetric.com/about-our-data/the-donut-and-score/>

### OBJECTIVE:

To use the Altmetric Attention Score, to determine which topics in musculoskeletal medicine in PM&R publications have generated the greatest interest.

### METHODS:

Descriptive, cross-sectional study evaluating the 100 articles ranked highest by attention score in each of 3 major rehabilitation medicine journals (*PM&R*, *Archives of Physical Medicine and Rehabilitation*, and *American Journal of Physical Medicine and Rehabilitation*). Articles were assigned to 1 or more topics in musculoskeletal medicine, sorted, and tallied. Main outcome measurements included the number of articles, summative attention score, and average attention score per musculoskeletal topic.

### RESULTS:

- Top 3 Topics Based on Number of Articles Published on Subject:
    - Physical Therapy/Exercise
    - Neck/Back Pathology
    - Physical Modalities
  - Physical Therapy/Exercise and Neck/Back Pathology were also amongst the top topics when evaluated by summative attention score.
  - Chronic Pain was the top topic when evaluating by average attention score.
- These findings suggest that research related to these topics was most often shared and discussed online.

# Highest-Ranking Musculoskeletal Medicine Articles in Rehabilitation Journals by Altmetric Attention Scores



Take a picture to get more info



### CONCLUSIONS AND FUTURE DIRECTIONS:

The use of alternative metrics to evaluate the most disseminated articles related to musculoskeletal medicine in PM&R helps elucidate trends of public interest. It is not surprising that neck/back pain, and treatment related to comprehensive therapy and adjunctive modalities represented the most popular topics of research, as neck/back pain are the leading musculoskeletal disorders causing impairment and disability. Further research with alternative metrics may provide guidance on how to disseminate and implement emerging scientific research into clinical practice.

Figure 2: Number of Articles Per Anatomic Region in Each of the Three Studied Journals

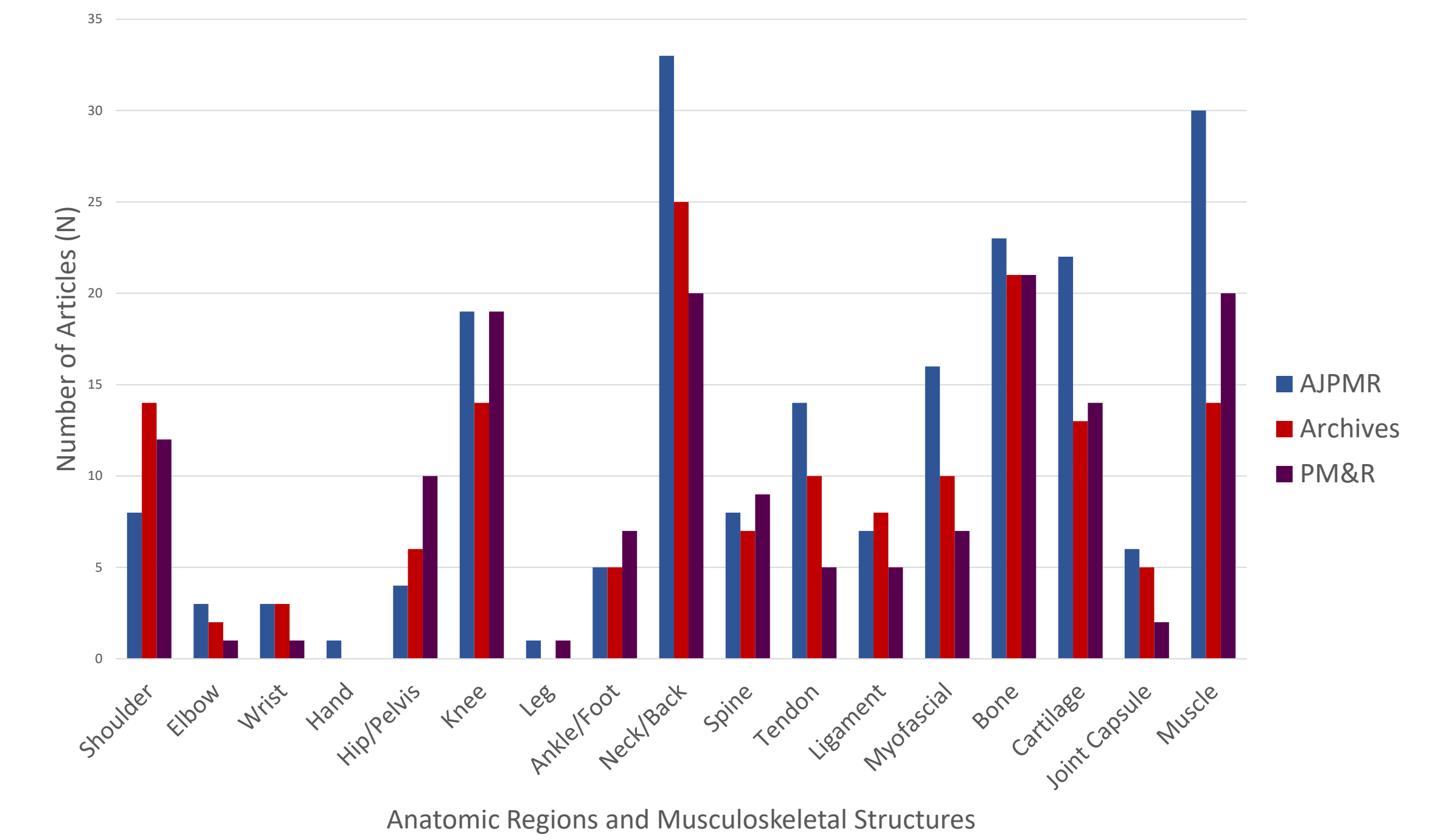
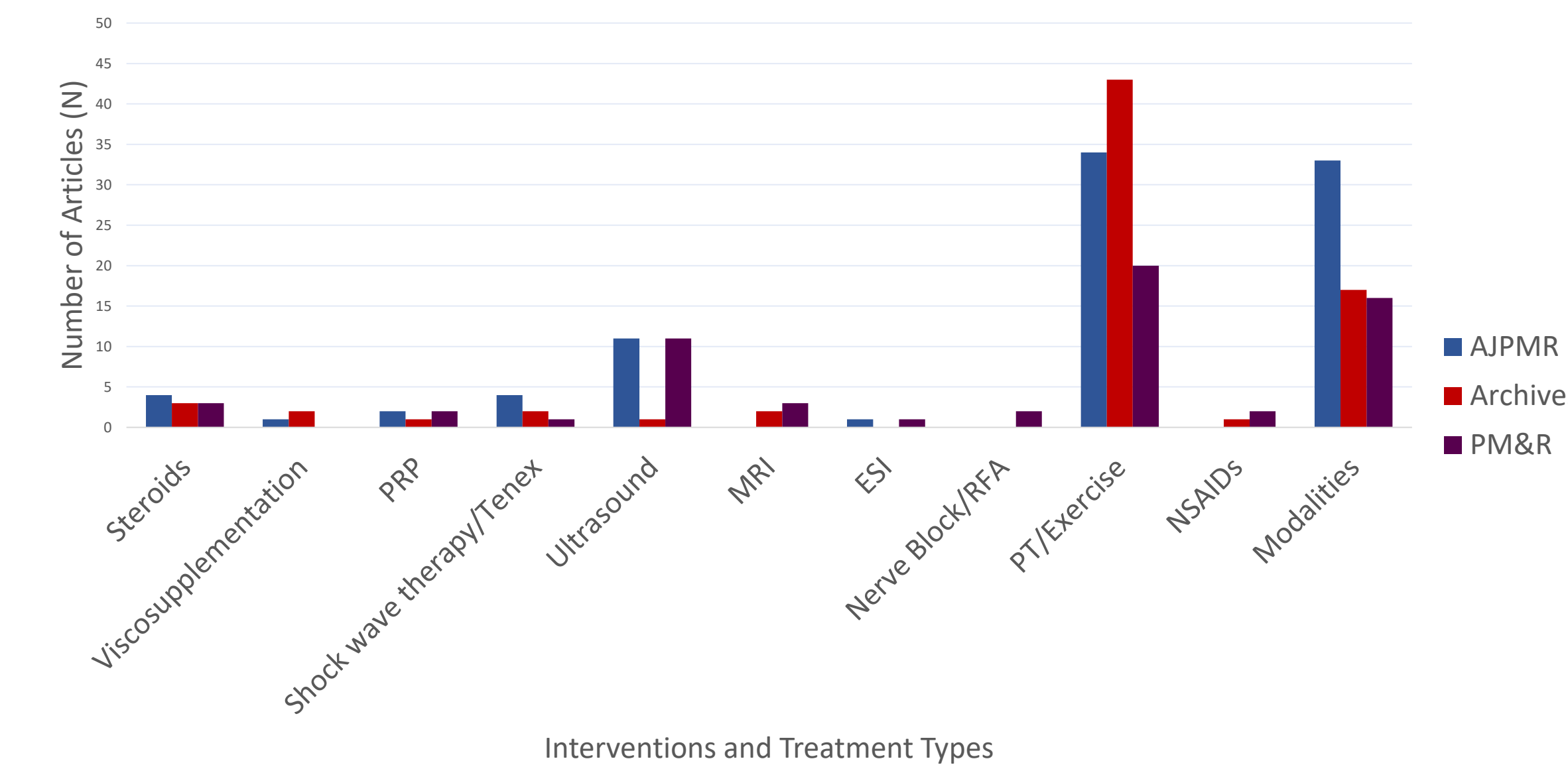


Figure 3: Number of Articles Per Treatment Type in Each of the Three Studied Journals



The authors of this study have nothing to disclose.