



Model Systems
Knowledge Translation
Center

Evaluating the Impact of Systematic Reviews in Disability and Rehabilitation Research Using Bibliometric Measures

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Background and Aims

▶ MSKTC Supported Systematic Reviews

- Model Systems Knowledge Translation Center (MSKTC; www.MSKTC.org)
- Model Systems in spinal cord injury (SCI) in 12 states , traumatic brain injury (TBI) in 13 states, and burn injury (Burn) in 4 states
- National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR), US Department of Health and Human Services

▶ Aims

- Exploring bibliometrics as a tool to evaluate systematic reviews
- Assessing the quality of studies included in those systematic reviews
- Evaluating the impact of MSKTC's systematic reviews

Methods

▶ Sample

- 11 MSKTC supported systematic reviews (2002-2016)

▶ Bibliometric analyses

- ***Quality of the systematic reviews:*** quality of the journals in which the reviewed articles were published and the frequency with which those articles were cited
- ***Impact of the systematic reviews:*** trends in the number of their journal citations and the journals' topical fields

▶ Metrics

- Times cited
- Journal impact factor scores (JIF)
- Journal ranking

Figure 1: Quality of Original Articles in Reviews by Injury Area

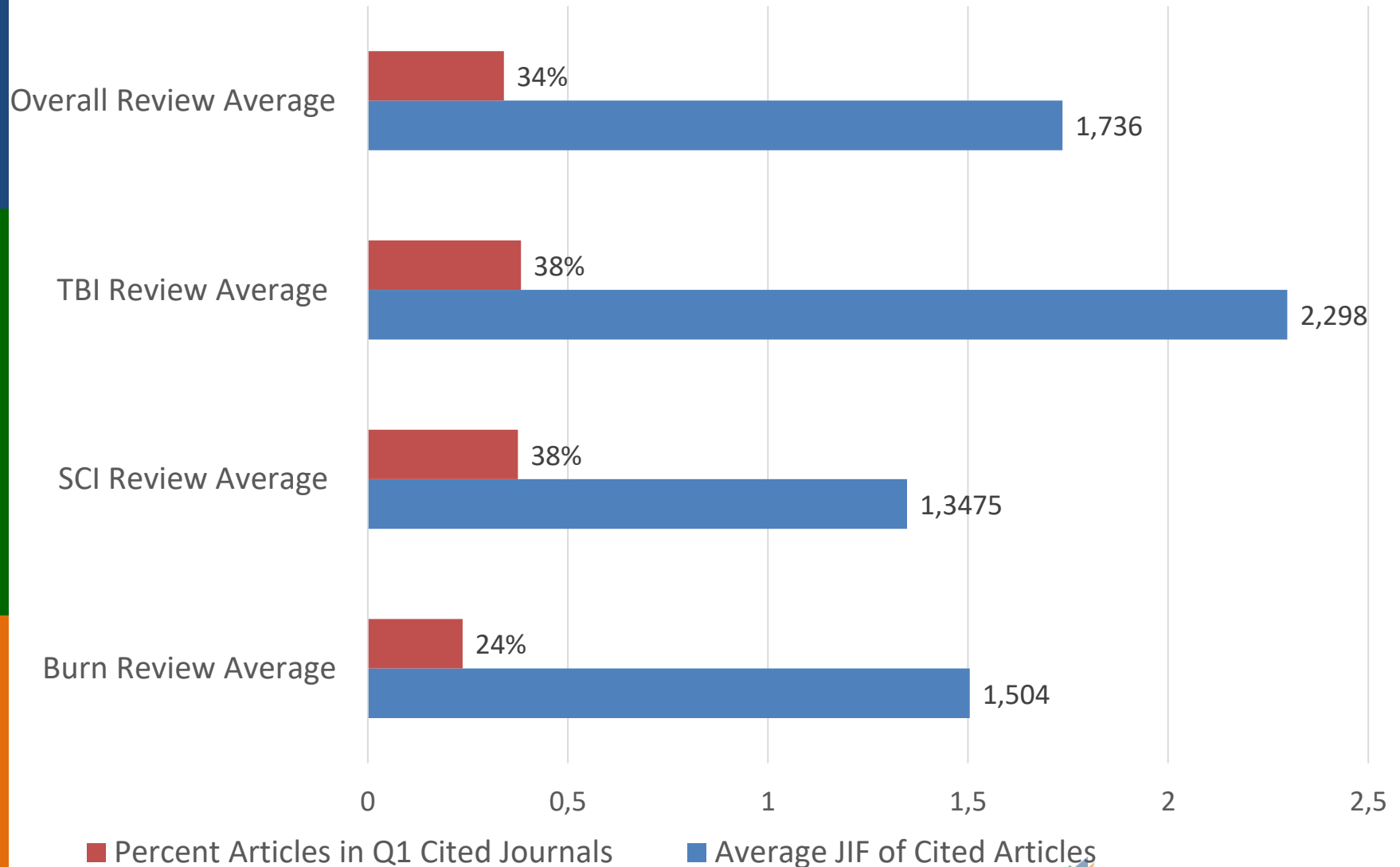


Figure 2: Times Cited and Adjusted Times Cited

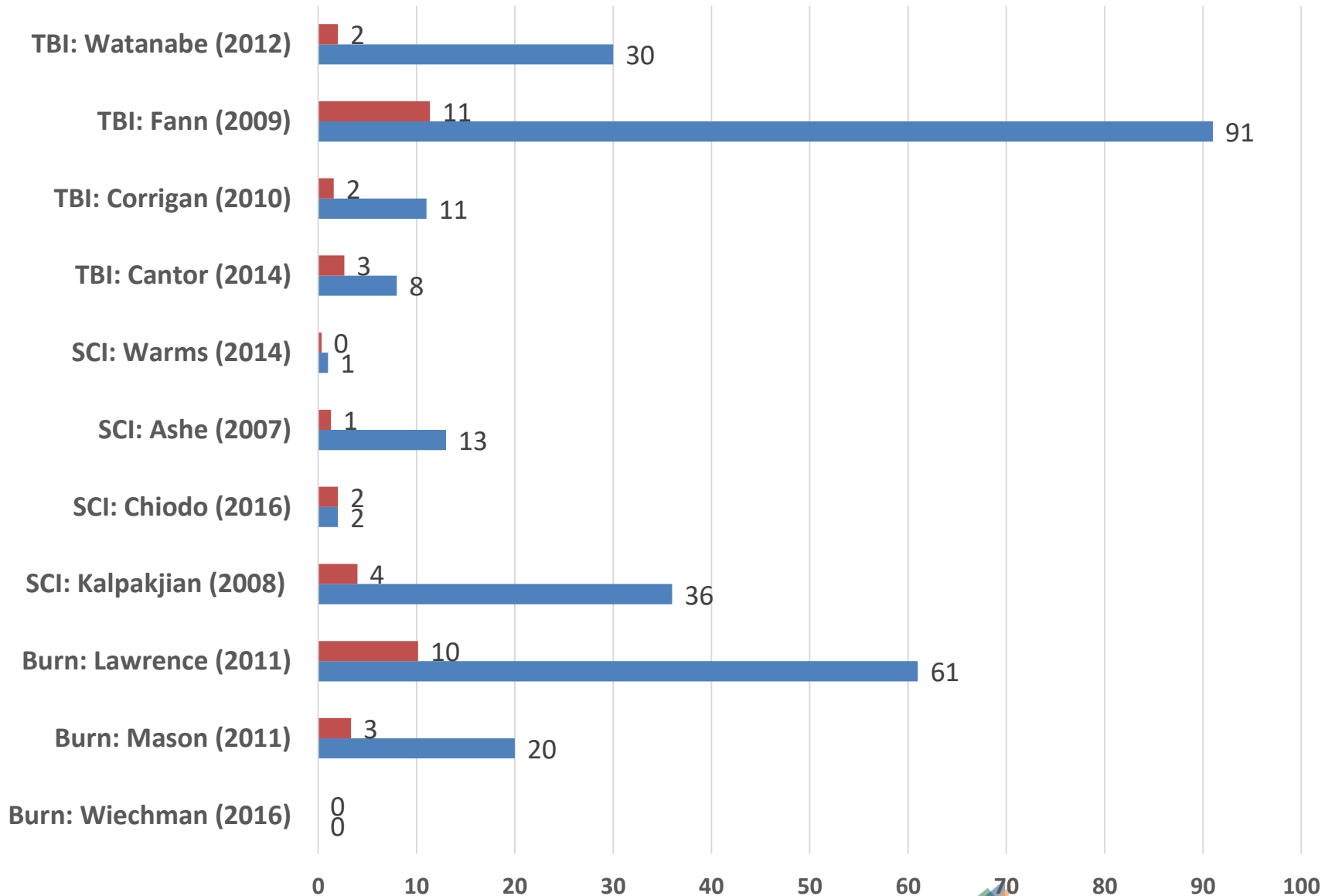
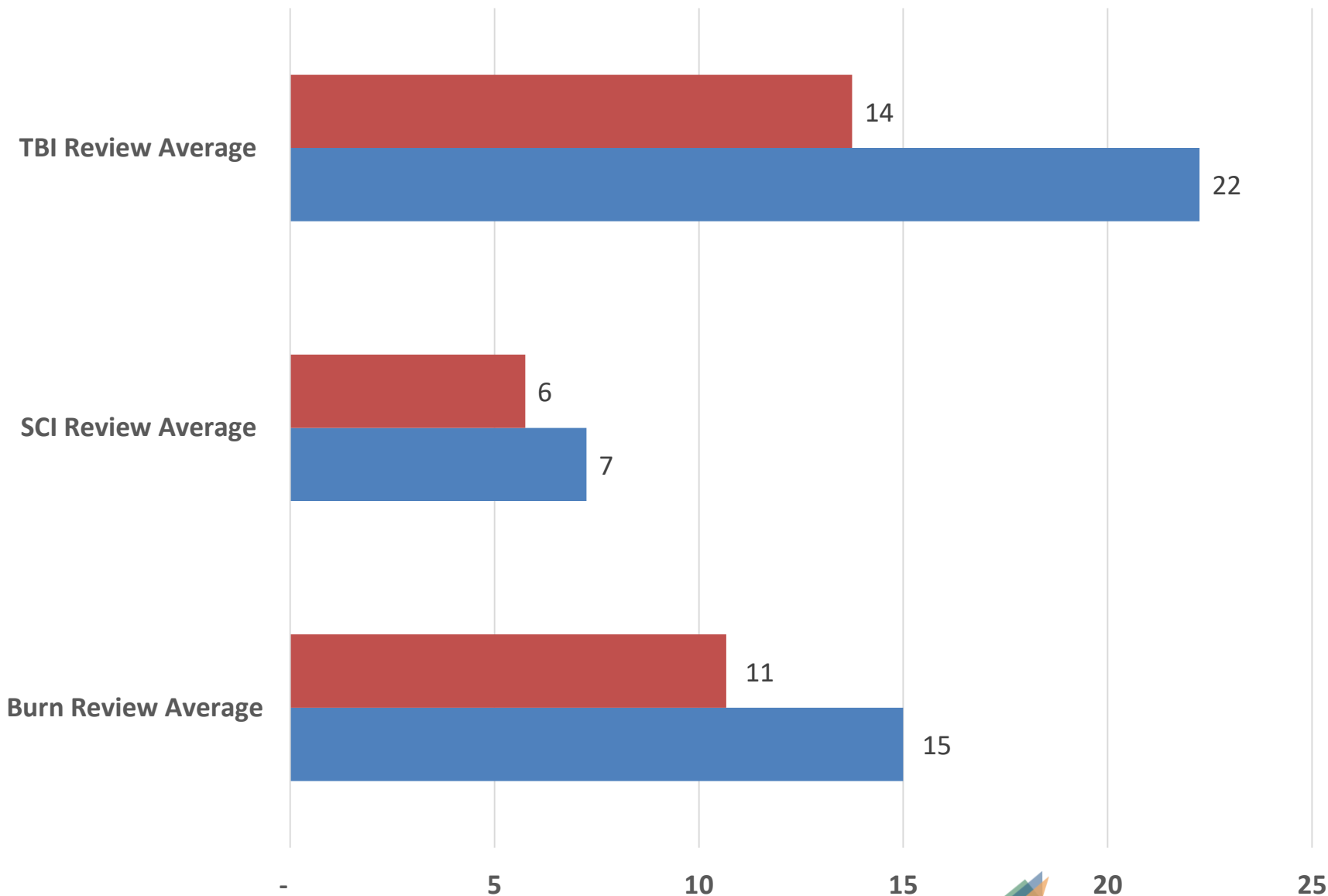
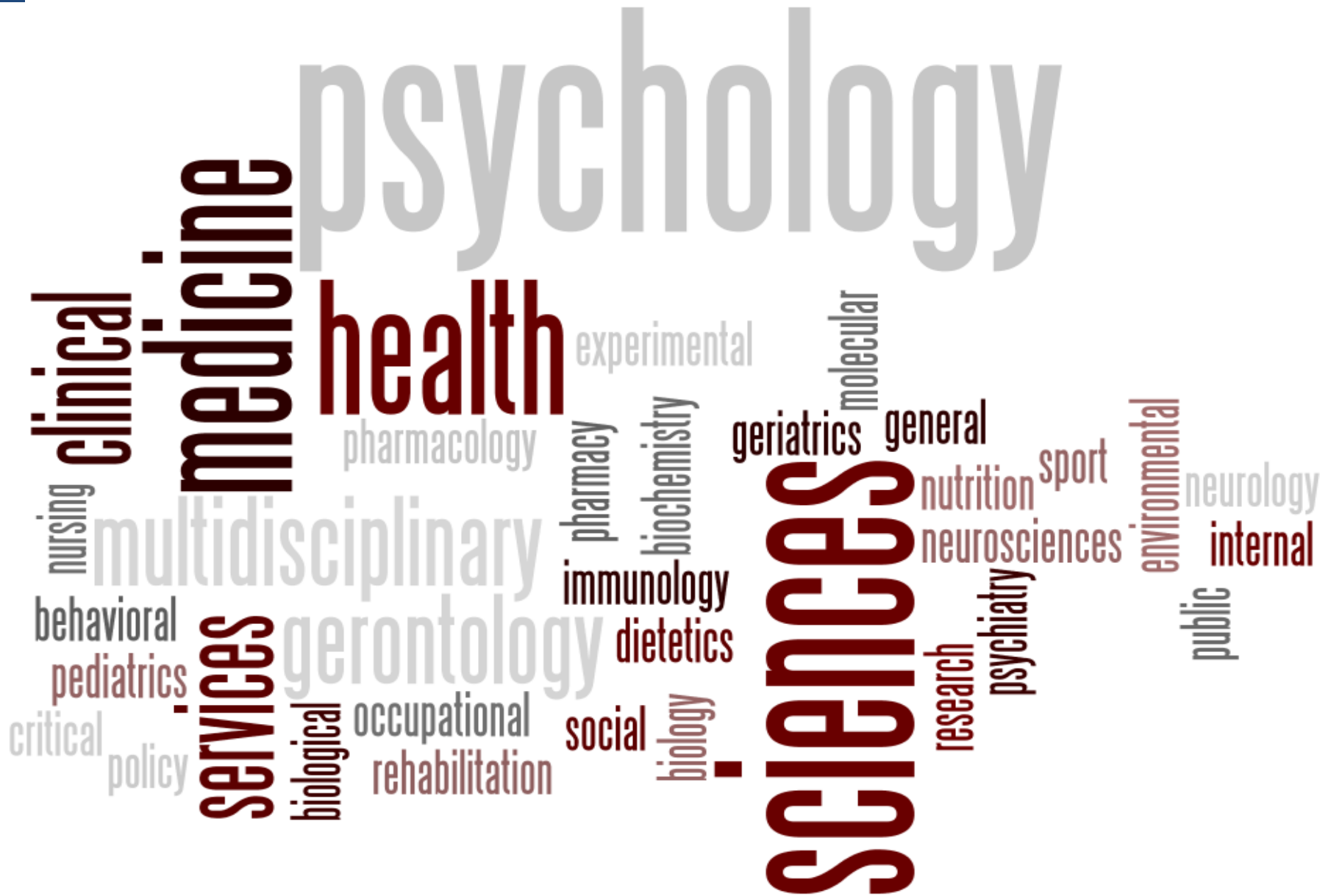


Figure 3: MSKTC Review Impact By Injury Area



Topical Fields: Fann et al. (2009)



Topical Fields: Lawrence et al. (2011)



Quality of MSKTC Reviews

- ▶ The articles included in the MSKTC reviews tend to be published in a wide range of journals with one third in Quartile 1 journals
- ▶ The articles included in TBI reviews tended to have higher quality ratings on our metrics than the articles included in SCI and Burn reviews

Impact of MSKTC Reviews

- ▶ The MSKTC systematic reviews were cited consistently, in some cases with increased frequency in recent years.
- ▶ On average, the MSTKC systematic reviews have been cited in 11 topical fields.
- ▶ The MSKTC reviews have had impact beyond the core topical field of rehabilitation, for example, clinical care and policy.
- ▶ TBI systematic reviews supported by MSTKC were cited more often and in journals from more topical fields than SCI and Burn systematic reviews.

Limits and Bottom Line

▶ Limits

- Only a small number of MSKTC reviews published in recent years are analyzed.
- We have not compared our bibliometric analysis data with those data for reviews published in other fields or conducted by non-Model System researchers.

▶ Bottom Line

- The greater number and variety of citations found in TBI reviews raises the question of whether TBI research is inherently integrated and across multiple professional disciplines, and disseminated more frequently than those in SCI and burns.
- Bibliometric analysis is a valuable tool for evaluating the quality and impact of systematic reviews.
- Because of publication and citation reporting lag time, researchers may need to wait at least two years before beginning a bibliometric evaluation.

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