Increasing Prevalence of Systematic Reviews in Sports Medicine Journals

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Systematic reviews can provide a useful source of condensed literature for clinicians.

However, over the past decade the number of reviews published in sports medicine journals has been increasing.

Only a small number of studies have been performed on this subject 1, 2, many researchers are generally aware of this trend.

Purpose: To analyze the prevalence of systematic reviews reported in the sports medicine literature as well the frequency of reviews according to topic

Hypothesis:
- A significant increase would be observed in the frequency of systematic reviews published in sports medicine journals over the past decade
- There would be an increase in the frequency in systematic reviews published on sports medicine research topics i.e. “ACL repair”, “Rotator Cuff Repair” etc
Methods

- Analysis to determine the increase in frequency of systematic review papers versus non systematic reviews
- Advanced search tool in PubMed - “Systematic Review” AND “(specific research field of sports medicine)”
- Search also for “Systematic Review” AND “(Specific Journal)”
- Search was performed for sports medicine journals with highest impact factors. The frequency/year data was extracted, tabulated and plotted on a scatter plot.
Results

Figure 1: Frequency of Systematic Reviews/Year ("Sports Medicine" AND "Systematic Review")

- The plotted data for all sports medicine related journals shows an increase in frequency in reviews published with the most notable increase during 2010-2015 as seen in Figure 1, with a positive exponential trend
• AJSM, BJSM (as shown in Figure 2 and Figure 3) demonstrate significant increases in the 2010-2020 time frame.

Figure 2: Frequency of Reviews for BJSM

Figure 3: Frequency of Reviews for AJSM
Results

• Looking at the total number of papers published on a specific research topic, the percentage that are reviews per year has shown an increase as well shown in Figure 4.

• Reviews related to “Meniscal Repair” and “Shoulder Instability” show the highest increase (Figure 4)

• However, when comparing the number of clinical studies to reviews in sports medicine, reviews remained significantly less than clinical studies from 2010-2018 (p 0.0045).
• This study highlights that there has been:
  • A clear increase in systematic reviews in Sports Medicine over the past 10 years
  • An increase in systematic reviews within high impact Sports Medicine Journals

• Reasons for this increase remain in question, possible explanations include: 1) systematic reviews are higher in demand 2) less time intensive without need for IRB 3) increased pressure to publish

• Particular vigilance is required to ensure that these studies reflect high quality data and best evidence based practice, and do not overshadow the need for high level clinical studies.

• Future directions include comparing no. of Level 1 and 2 studies to systematic reviews related by topic/per year, and analyzing level of evidence involved in the systematic reviews