

Understanding the Use of Clinically Significant Outcome Scores in Shoulder and Knee Surgery

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Disclosure of Interest Information

- Dr. Feldman is an associate editor of *Arthroscopy: The Journal of Arthroscopic and Related Surgery*.
- The remaining authors have nothing to disclose.

Objective of the Study

1. To study the prevalence and quality of application of clinically significant outcome studies such as minimal clinically important difference (MCID), substantial clinical benefit (SCB), patient acceptable symptomatic state (PASS), and maximum outcome improvement (MOI) reported in orthopaedic sports medicine knee and shoulder literature in recent years
2. To bring awareness and proper utilization of such metrics

Materials and Methods

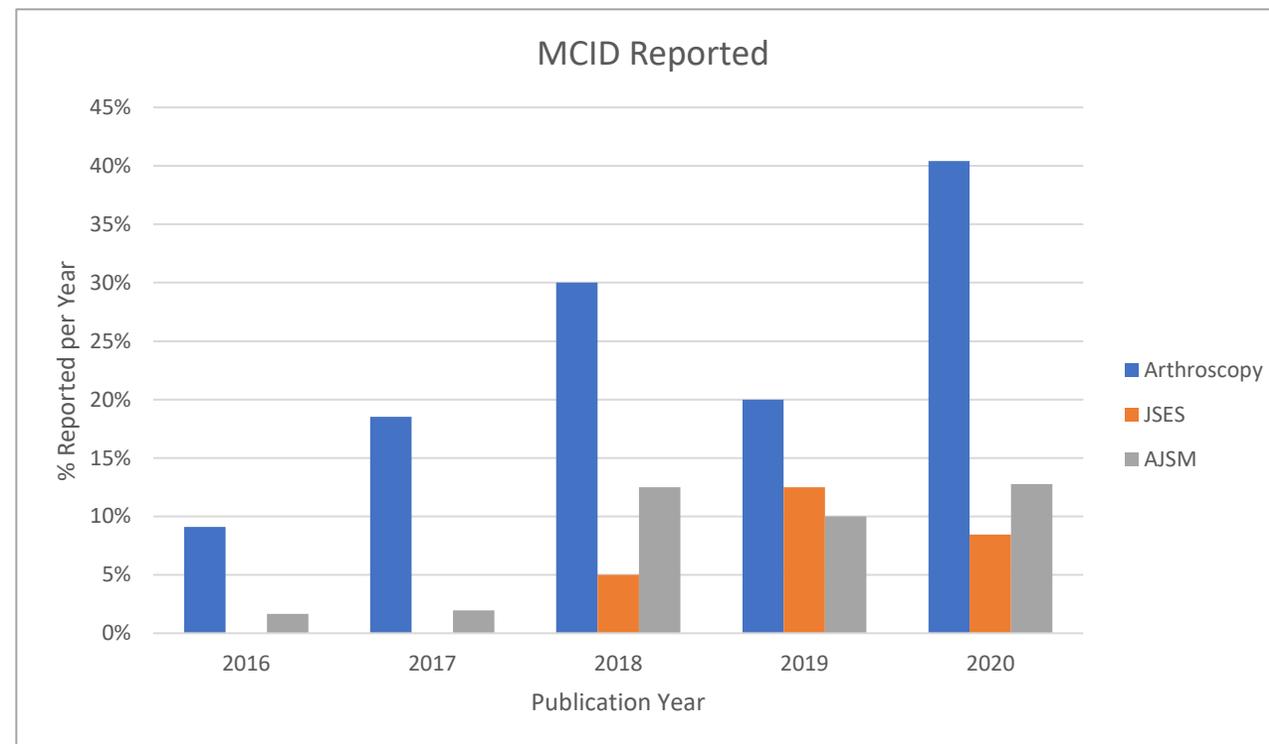
- A literature review of all shoulder and knee articles published from the American Journal of Sports Medicine (AJSM), Journal of Shoulder and Elbow Surgery (JSES), and Arthroscopy from 2016-2020
- Evaluated if any of the four metrics: MCID, SCD, PASS, or MOI, were used or reported
- Recorded the way these metrics were reported and interpreted

Results and Conclusions

- A total of 5039 studies were evaluated
 - 889 total shoulder and knee studies met the inclusion criteria and were reviewed
- 16.7% of these studies reported either MCID, PASS, or SCB
- MCID was the most reported outcome measure across all three journals
- Only 30.8% of studies reported MCID correctly as an individual patient metric (i.e., as an individual patient metric that was calculated as a percentage).

Results and Conclusions

- There was a statistically significant increase in MCID reporting in two of the three journals (*Arthroscopy* and *JSES*) over the five-year course.
- On average, MCID was reported 12.4% of the time throughout the five years.



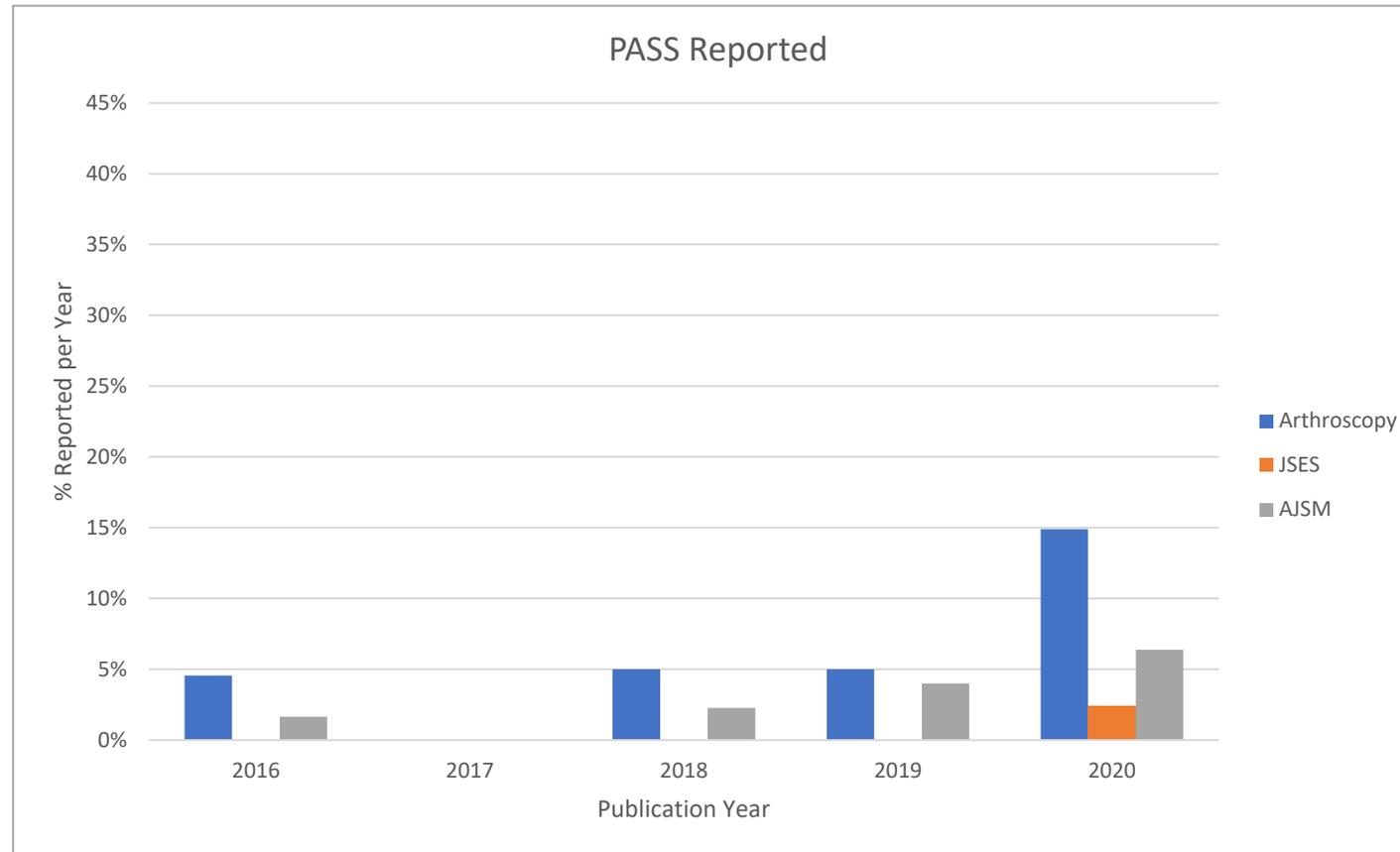
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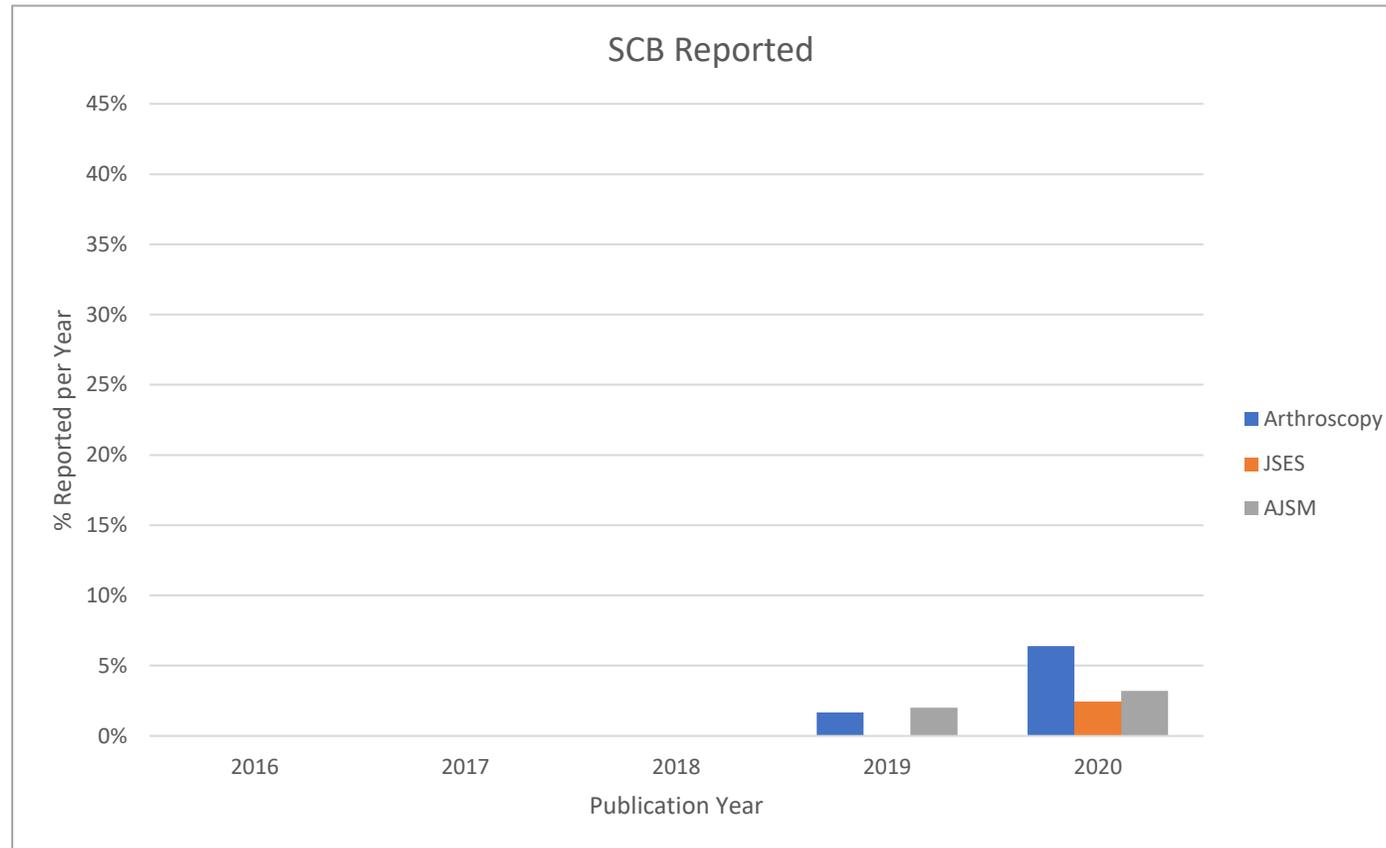
Results and Conclusions

- On average, PASS was reported 3.2% of the time throughout the five years.



Results and Conclusions

- On average, SCB was reported 1.1% of the time throughout the five years.



Significance of the Findings

- This study shows an increasing trend in the use of clinically significant outcome metrics, such as MCID, for interpretation of patient reported outcomes
- However, these individual metrics are often not being used on the individual level and subsequently are not reported accurately

Significance of the Findings

- We recommend determining if the specific metric met the threshold per individual patient
- To achieve the full potential of these metrics, these should be reported as a percentage of the sample population
- If used in a uniform manner, these can be translated accurately across various studies.