The Hundred Most Cited Publications in Pediatric Sports Medicine Surgery

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PURPOSE
- Using citation analysis, identify the 100 most commonly cited pediatric sports medicine surgery articles in order to:
  • Assess commonly researched areas
  • Discover topics that may benefit from further research
  • Generate a reliable and comprehensive reference tool for:
    • Surgeons seeking to explore, maintain, or expand their superspecialization in this area
    • Educators to provide to trainees seeking expertise in this area
  • Explore/acknowledge impactful contributions to date to the specialty

METHODS
- Web of Science Citation Index search performed (July 2015)
- 41 common pediatric sports medicine identifiers
- 13 different pediatric identifiers
- 2 authors independently reviewed articles to confirm:
  • Qualification as a pediatric sports medicine surgery article
  • Appropriate patient population studied (>50% pts <19 y/o)
- Each article was then reviewed for:
  • # of citations
  • Citations per year
  • Anatomical area of focus
  • Type of research (Country of the study institution, Journal, Year of publication)
  • Level of evidence

RESULTS
- 103 articles
- Mean # citations per article: 80 (range, 50-209)
- 21 articles ≥100 citations
- Most common anatomic area of focus: lower extremity (n=73)
  • Sub-anatomic area of focus: knee (n=64)
  • Other areas of focus:
    • General (n=17),
    • Upper extremity (n=8)
    • Back/spine (n=5),
- Studies exploring gender differences: 8 articles
- Most common country of origin: U.S. (n=60) (2000s (n=53), 1990s (n=37), 1980s (n=10), 2010s (n=2))
- Levels of evidence (descending order): IV (n=36), II (n=25), III (n=17), level I (n=5), level V (n=3).

CONCLUSIONS/SIGNIFICANCE
- The most impactful pediatric sports medicine literature is disproportionately weighted towards:
  • The most recent decade (2000's)
  • The knee,
  • Lower levels of evidence
    • <5% Level 1 research
- Significant existing gaps and future opportunities in pediatric sports medicine research remain, particularly:
  • Higher level methodological designs
  • Topics related to upper extremity, hip, and ankle conditions

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