

The Effect of the COVID-19 Pandemic on the Time to Publication Among Orthopaedic Sports Medicine Journals

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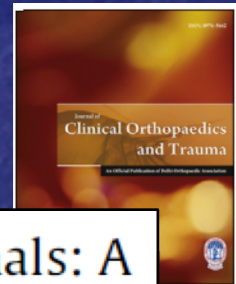
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Introduction

- Transparency in the publication timeline better informs readers of potential influences, such as the COVID-19 pandemic, on the works being utilized in the practice of evidence-based medicine
- Authors may consider the impact factor and journal rank when deciding to submit a manuscript
- With the suspension of clinical practice at the peak of the COVID-19 pandemic, there was a significant increase in scholarly work including publications aiming to share the most up-to-date information on the novel corona virus



Time to publication for orthopaedic surgery peer-reviewed journals: A cross-sectional bibliometric analysis

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Purpose

- To compare the publication speed of manuscripts and content in orthopaedic sports medicine journals during the first two years of the COVID-19 pandemic



Methods

- Convenience sample of journal articles:
 - January, May, and September
 - Years 2019 through 2021
- Three orthopaedic sports medicine journals
 - *Arthroscopy*
 - *American Journal of Sports Medicine (AJSM)*
 - *Knee Surgery, Sports Traumatology, Arthroscopy (KSSTA)*
- Timeline of manuscript publication process was compared
 - Manuscript submission → manuscript acceptance → electronic publication (e-Pub) → journal issue publication



Results

- 826 journal articles were included in the convenience sample

Journal	Year	Article Count
<i>Arthroscopy</i>	2019	78
	2020	71
	2021	79
<i>AJSM</i>	2019	87
	2020	83
	2021	85
<i>KSSTA</i>	2019	119
	2020	118
	2021	106

Results

- *Arthroscopy:*
 - No significant differences in the time from manuscript submission to journal publication
 - Significant decrease in time from acceptance to e-Pub ($p < 0.001$)
 - Increase in time from e-Pub to journal publication ($p < 0.001$)

Journal	Year	Submission to e-Pub	Submission to Journal Publication	Acceptance to e-Pub	Acceptance to Journal Publication	e-Pub to Journal Publication
Arthroscopy	2019	314	337	140	163	23
	2020	259	333	74	148	74
	2021	219	349	16	147	130

Values presented in days

Results

- **AJSM:**
 - Increase in the time from submission to journal publication between 2019 vs 2021 ($p=0.05$) and 2020 vs 2021 ($p=0.001$)
 - Acceptance to e-Pub increased between 2019 to 2021 ($p<0.001$) and 2020 to 2021 ($p<0.001$)
 - Increase in the time from acceptance to journal publication between 2020 and 2021 ($p=0.001$)
 - No differences in time from e-Pub to journal publication

Journal	Year	Submission to e-Pub	Submission to Journal Publication	Acceptance to e-Pub	Acceptance to Journal Publication	e-Pub to Journal Publication
AJSM	2019	236	294	79	137	61
	2020	233	284	77	128	51
	2021	273	329	110	166	56
Values presented in days						

Results

- **KSSTA:**

- Demonstrated the longest publication timelines at the peak of the pandemic in 2020 for both e-Pub to journal publication (338 days) and acceptance to journal publication (352 days)
- Increased time from submission to journal publication from 2019 to 2020 ($p < 0.001$) and 2019 to 2021 ($p < 0.05$) but a decrease from 2020 to 2021 ($p < 0.05$)
- Increased time from acceptance to journal publication ($p < 0.01$)
- e-Pub to journal publication increased between 2019 and 2020 ($p < 0.001$) and 2019 to 2021 ($p < 0.01$) but a decrease from 2020 to 2021 ($p < 0.01$)

Journal	Year	Submission to e-Pub	Submission to Journal Publication	Acceptance to e-Pub	Acceptance to Journal Publication	e-Pub to Journal Publication
KSSTA	2019	167	380 ↓	11	224 ↓	213 ↓
	2020	153	490 ↑	14	352	338
	2021	158	432	17	291	275

Values presented in days

Results

- Between journals, duration from acceptance to journal publication, acceptance to e-Pub, e-Pub to journal publication, and acceptance to journal publication differed significantly over the three years being analyzed.

Year	Journal	Submission to acceptance	Submission to journal publication	Acceptance to e-Pub	Acceptance to journal publication	e-Pub to journal publication
2019	AJSM vs Arthroscopy	157 vs 174	294 vs 337	79 vs 140***	137 vs 163	61 vs 23*
	AJSM vs KSSTA	157 vs 156	294 vs 380***	79 vs 11***	137 vs 224***	61 vs 213***
	Arthroscopy vs KSSTA	174 vs 156	337 vs 380**	140 vs 11***	163 vs 224***	23 vs 213***
2020	AJSM vs Arthroscopy	156 vs 184	284 vs 333	77 vs 74	128 vs 148	51 vs 74
	AJSM vs KSSTA	156 vs 138	284 vs 490***	77 vs 14***	128 vs 352***	51 vs 338***
	Arthroscopy vs KSSTA	184 vs 138***	333 vs 490***	74 vs 14***	148 vs 352***	74 vs 338***
2021	AJSM vs Arthroscopy	162 vs 203*	329 vs 349	110 vs 16***	166 vs 147	56 vs 130***
	AJSM vs KSSTA	162 vs 141	329 vs 432***	110 vs 17***	166 vs 291***	56 vs 275***
	Arthroscopy vs KSSTA	203 vs 141***	349 vs 432***	16 vs 17	147 vs 291	130 vs 275***

p<0.05*, p<0.01**, p<0.001***
Values presented in days

Results

- Publication Content

- Trend to fewer clinical articles and a greater number of systematic reviews and meta-analyses
- Significant differences in 2019 vs 2021 ($p < 0.001$) and 2020 vs 2021 ($p < 0.01$).

	Clinical	Systematic review	Narrative Review	Meta-analysis
2019	258 (90)	22 (8)	1 (<1)	3 (1)
2020	246 (90)	17 (6)	3 (1)	6 (2)
2021	218 (81)	28 (10)	12 (4)	12 (4)
N (%)				

Discussion

- Our analysis of the publication timelines among three orthopaedic sports medicine journals demonstrated significant disruptions in the publication process at various stages over the years surrounding the COVID-19 pandemic
- At the height of the COVID-19 pandemic in 2020, publication timelines may have been expedited in order to disseminate pertinent information related to COVID-19, which has been termed the “infodemic”
- The practice of elective orthopaedics was particularly affected and saw a decrease in surgeries and office visits thereby impacting data collection and new research focuses during the height of the pandemic in 2020

Conclusions

- Changes in aspects of the publication timeline occurred in orthopaedic sports medicine journals surrounding the peak of the COVID-19 pandemic in 2020
- Authors should be aware of changes in the publication process
- Journals may consider ways of improving time from acceptance to publication and in determining journal content

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