

Orthopaedic Sports Medicine Podcasts Should Tailor Characteristics Such as Episode Length and Social Media Utilization for Best Audience Engagement



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Purpose: To describe the growth and characteristics of active orthopaedic sports medicine podcasts. **Methods:** Three common podcasting platforms (Apple, Google, and Spotify) were queried July 24, 2021 using the search term “sports medicine.” For each unique active podcast hosted by an orthopaedic surgeon, data were collected on year of the first episode, number of episodes, frequency of episodes, types of guests, topics discussed, episode length, and social media presence. Descriptive characteristics were then calculated. **Results:** 15 podcasts met inclusion criteria. Seven (46.7%) of these podcasts were started within 12 months of July 24, 2021. The most common episode release schedule was weekly, and podcast lengths averaged 21 minutes, 47 seconds (SD 17:17, range: 11:02–1:49:13). All podcasts featured guests, most often from a variety of sports medicine backgrounds. Social media platforms were commonly used by podcast hosts, with social media account follower numbers as high as over 100,000, and consistent engagement across three major social media platforms for most podcasts. **Conclusions:** This study found that episodes are typically released weekly and average 21 minutes, 47 seconds long, with most covering a wide array of topics in sports medicine. The Facebook accounts of these podcasts displayed higher numbers of followers compared to other social media platforms; however, Instagram was superior for engagement. **Clinical Relevance:** Orthopaedic sports medicine podcasts have an increasing presence and can be used to increase trainee engagement and public exposure via tailoring of podcast episode lengths and selection of social media platforms with high audience interaction.

Introduction

Podcasts have become increasingly used within the realm of medical education.¹⁻⁶ The 2021 Infinite Dial, a report series covering consumer usage of media

and technology, recently published data that podcasting familiarity and listening reached all-time highs in 2021.³ This is especially true among weekly listeners, who averaged 5.1 podcast shows per week, as of April 2021. The demographics of podcast listeners continue to diversify as well, with the proportion of female listeners reaching a high point in 2021. There were over 48 million total podcast episodes across all subjects as of April 2021,⁷ with 57% of the United States (US) population, or an estimated 162 million people, having ever listened to one.³

Studies have shown that podcasting is a feasible option for disseminating health and research information.⁸ Some medical students and residents find podcasts to be more useful than didactic lectures,⁹ and some podcast listeners show a significantly higher gain of knowledge and satisfaction compared to trainees using traditional textbooks.¹⁰ Podcasting allows hosts and guests to form a sense of camaraderie and casual connection through the incorporation of emotion, such as humor and personality,¹¹ and study participants find them easy to use and engage with, while offering options for broad exposure, as well as targeted learning.⁵

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Table 1. Orthopaedic Sports Medicine Podcasts

Name	Date Started	Number of Episodes	Frequency of Episode Release	Guests
<i>American Journal of Sports Medicine</i> (AJSM)	Jan 3, 2013	190	Other	Recent Authors
<i>British Journal of Sports Medicine</i> (BJSM)	June 25, 2013	258	Weekly	Variable
<i>Inside Sports Medicine</i>	Mar 22, 2014	806	Weekly	Variable
<i>Sports Medicine Weekly</i>	Mar 25, 2015	650	Weekly	Variable
<i>American Medical Society for Sports Medicine</i> (AMSSM)	April 28, 2017	27	Weekly	Variable
<i>Arthroscopy</i>	Nov 2, 2018	121	Weekly	Recent Authors
<i>Pediatric Sports Medicine Podcast</i>	May 29, 2020	25	Other	Variable
<i>6-8 Weeks, Perspectives on Sports Medicine</i>	Jul 14, 2020	50	Weekly	Variable
<i>The Sports Medicine Orthopod</i>	Sept 23, 2020	36	Weekly	Variable
<i>International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine</i> (ISAKOS)	Oct 19, 2020	9	Monthly	Orthopaedic Surgeons
<i>Peds Sports</i>	Jan 30, 2021	9	Monthly	Orthopaedic Surgeons
<i>Victory Over Injury Podcast</i>	Feb 5, 2021	18	Other	Variable
<i>Breaking Bones</i>	Feb 7, 2021	24	Weekly	Variable
<i>The Sports Docs Podcast</i>	Mar 7, 2021	8	Monthly	Orthopaedic Surgeons
<i>Sports Medicine on Tap</i>	April 1, 2021	16	Weekly	Variable

Studies have shown that medical podcasts, in general, have greatly increased in number and popularity over the past two decades with the rise of the Internet.^{2,12} However, few studies have looked at the rise and impact of podcasts related to orthopaedic surgery, with even less of a focus on orthopaedic sports medicine. In January 2020, Little et al. found that there were only 10 orthopaedic podcasts as a whole, 5 of which had no episodes released within 6 months of data collection.¹³ As of October 2020, Jella et al. found a total of 62 active orthopaedic podcasts on the Apple, Google, and Spotify platforms, “active” being described as having an episode released within 3 months of data collection.¹⁴ The coronavirus disease 2019 (COVID-19) has helped spur a movement toward more online education opportunities, catalyzing the supplementation of resident education with online resources that has been ongoing over the past decade.¹⁴⁻¹⁶ E-learning has continued to gain popularity, although limited studies have been done to quantify the growth.¹⁴ The purpose of our study was to describe the growth and characteristics of active orthopaedic sports medicine podcasts. Our hypothesis is that there has been substantial growth recently among orthopaedic sports medicine podcasts, with a considerable presence on social media.

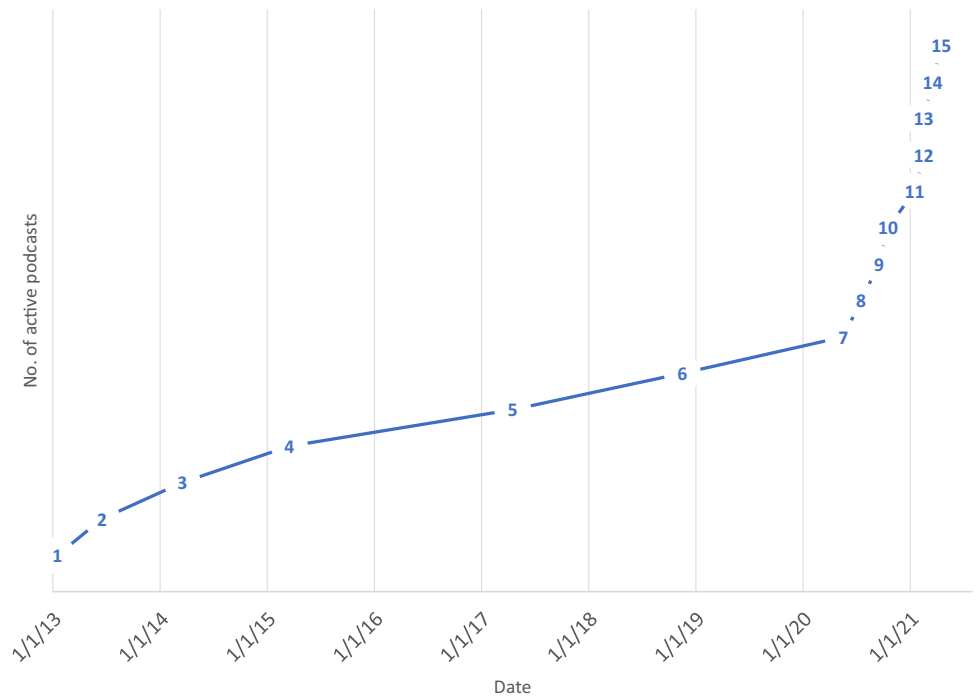
Methods

Three of the most common podcasting platforms (Apple podcasts, Google podcasts, and Spotify) were queried on July 24, 2021 using the search term “sports medicine.” Podcasts were included if they focused on orthopaedic sports medicine, were hosted either solely or primarily by a trained orthopaedic surgeon, and were “active” podcasts (i.e., those having released an episode within 3 months of the date of data collection). Podcasts that had only one episode, were student

projects, non-English language, or those that may have featured sports medicine specialists, but did not focus strictly on sports medicine as their subject matter, were excluded. Two coauthors independently searched and filtered the results.

For each of the podcasts included, data were collected on year of the first episode, number of episodes, frequency of episodes, types of guests, topics discussed, social media presence, and episode length. After data collection and review, we elected to divide this data by the year 2017 given a stark difference in total episode numbers for the podcasts prior to this date. Episode frequency was determined by taking an average of the frequency of releases over the 3 months prior to the date of data collection. For cases in which a podcast was only sporadically active since the time of the first episode, a typical episode release schedule from a recent active period was used. The frequency of podcast episode release was classified as either “weekly,” “biweekly,” “monthly,” or “other.” The “other” designation was used for podcasts that had inconsistent release schedules. “Topics discussed” was determined by evaluating the most common topics covered in each of the episodes. The topics were then divided into three categories: “daily life and athletics,” “literature,” or “general topics.” Average episode lengths were determined for each podcast over the past 12 months from the date of data collection, as permitted by podcast lifespan. Social media presence and engagement were determined by looking at the Facebook, Instagram, and Twitter pages for each podcast and determining the average number of likes, comments, and shares for each over the past 12 months, when possible. In the event of multiple host accounts, the one held by the primary host (and not the larger publishing group) was used to ensure specificity to the podcast in question. All

Fig 1. Trends in number of active orthopaedic sports medicine podcasts available for listening on Apple, Google, and Spotify.



data analysis was conducted using Microsoft Excel v.16.50. This study was exempt from Institutional Review Board approval, given its usage of public data and lack of protected patient health information.

Results

A total of 15 unique podcasts met inclusion criteria (Table 1). There was a noticeable rise in active podcasts over the past 2 years. Of all included podcasts, seven (46.7%) were started within 12 months of July 24, 2021 (Fig 1). The average number of episodes across all podcasts was 149.8 (standard deviation [SD]: 247.8, range: 8–806), with those beginning prior to 2017 having an average number of 476.0 episodes (SD:

299.2, range: 190–806), and those beginning in 2017 or after averaging 31.2 episodes (SD 32.4, range 8–121) ($P = .059$). Episodes were most commonly released in a

Table 3. Social Media Presence of the Podcasts

Name	Number of Followers		
	Facebook	Instagram	Twitter
<i>American Journal of Sports Medicine (AJSM)</i>	26,942	2,267	37,400
<i>British Journal of Sports Medicine (BJSM)</i>	109,144	74,400	83,700
<i>Inside Sports Medicine</i>	1,381	N/A	423
<i>Sports Medicine Weekly</i>	2,302	433	1,842
<i>American Medical Society for Sports Medicine (AMSSM)</i>	15,833	1,382	9,565
<i>Arthroscopy</i>	7,039	13,600	15,300
<i>Pediatric Sports Medicine Podcast</i>	38	N/A	477
<i>6-8 Weeks, Perspectives on Sports Medicine</i>	N/A	N/A	N/A
<i>The Sports Medicine Orthoped</i>	2	711	41
<i>International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS)</i>	3,401	5,115	9,405
<i>Peds Sports</i>	N/A	237	79
<i>Victory Over Injury Podcast</i>	(personal account)	2,809	400
<i>Breaking Bones</i>	N/A	N/A	N/A
<i>The Sports Docs Podcast</i>	N/A	310	0
<i>Sports Medicine on Tap</i>	N/A	50	N/A

Table 2. Episode Release Frequency, Types of Guests, and Topics Discussed on Orthopaedic Sports Medicine Podcasts

	No.	%
Frequency of Episode Release		
Daily	0	0
Weekly	9	60.0
Biweekly	0	0
Monthly	3	20.0
Other	3	20.0
Types of Guests		
Orthopaedic Surgeons	3	20.0
Recent Authors	2	13.3
Variable	10	66.7
Topics Discussed		
Daily Life and Athletics	3	20.0
Literature	5	33.3
General topics	7	46.7

Table 4. Social Media Engagement of the Podcasts

Name	Average Facebook Likes [<i>n</i> (range)]	Average Facebook Comments [<i>n</i> (range)]	Average Facebook Shares [<i>n</i> (range)]	Average Instagram Likes [<i>n</i> (range)]	Average Instagram Comments [<i>n</i> (range)]	Average Twitter Likes [<i>n</i> (range)]	Average Twitter Retweets [<i>n</i> (range)]	Average Twitter Replies [<i>n</i> (range)]
<i>American Journal of Sports Medicine (AJSM)</i>	15.80 (1-51)	.20 (0-5)	4.67 (0-16)	28.69 (6-79)	.37 (0-4)	20.95 (0-92)	7.95 (0-44)	.20 (0-1)
<i>British Journal of Sports Medicine (BJSM)</i>	57.91 (0-435)	1.74 (0-33)	20.97 (0-144)	843.29 (149-3961)	10.90 (0-75)	65.71 (19-358)	16.92 (1-165)	.55 (0-3)
<i>Inside Sports Medicine</i>	2.45 (0-9)	5.92 (0-37)	.34 (0-3)	N/A	N/A	0 (0-0)	0 (0-0)	0 (0-0)
<i>Sports Medicine Weekly</i>	1.48 (0-6)	.05 (0-1)	.57 (0-6)	6.22 (4-50)	.43 (0-5)	.46 (0-2)	.07 (0-1)	0 (0-0)
<i>American Medical Society for Sports Medicine (AMSSM)</i>	7.40 (0-32)	.06 (0-2)	1.44 (0-27)	25.12 (2-128)	.77 (0-5)	7.58 (0-36)	2.29 (0-15)	.13 (0-3)
<i>Arthroscopy</i>	12.57 (2-65)	.05 (0-2)	5.32 (0-25)	82.79 (11-281)	.61 (0-7)	18.85 (1-60)	8.15 (0-23)	.40 (0-4)
<i>Pediatric Sports Medicine Podcast</i>	.56 (0-7)	.25 (0-4)	.19 (0-1)	N/A	N/A	5.66 (1-27)	2.76 (1-15)	.27 (0-3)
<i>6-8 Weeks, Perspectives on Sports Medicine</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>The Sports Medicine Orthoped</i>	0 (0-0)	0 (0-0)	0 (0-0)	31.32 (13-47)	1.27 (1-10)	.61 (0-10)	.22 (0-4)	.19 (0-2)
<i>International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS)</i>	3.92 (0-15)	.01 (0-1)	.87 (0-6)	42.24 (7-147)	.46 (0-10)	3.64 (0-14)	1.36 (0-2)	.03 (0-2)
<i>Peds Sports</i>	N/A	N/A	N/A	8.50 (7-10)	1.00 (1-1)	6.00 (1-13)	3.38 (1-6)	0 (0-0)
<i>Victory Over Injury Podcast</i>	2.88 (0-33)	.37 (0-9)	.28 (0-9)	76.87 (20-457)	8.22 (0-36)	5.48 (0-12)	.96 (0-3)	.08 (0-2)
<i>Breaking Bones</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>The Sports Docs Podcast</i>	N/A	N/A	N/A	25.88 (13-48)	1.81 (0-5)	N/A	N/A	N/A
<i>Sports Medicine on Tap</i>	N/A	N/A	N/A	8.30 (2-14)	.67 (0-1)	N/A	N/A	N/A

Table 5. Average Episode Length of Each Podcast

Name	Average Length (minutes:seconds) (range, SD)
<i>American Journal of Sports Medicine (AJSM)</i>	11:02 (5:00-22:00, 6:06)
<i>Inside Sports Medicine</i>	12:19 (3:00-19:00, 3:43)
<i>Sports Medicine Weekly</i>	12:59 (1:00-42:00, 8:59)
<i>Arthroscopy</i>	18:04 (8:00-44:00, 7:07)
<i>British Journal of Sports Medicine (BJSM)</i>	21:14 (11:00-41:00, 6:46)
<i>6-8 Weeks, Perspectives on Sports Medicine</i>	25:07 (17:00-36:00, 4:29)
<i>American Medical Society for Sports Medicine (AMSSM)</i>	25:20 (14:00-41:00, 9:48)
<i>Breaking Bones</i>	28:58 (28:00-29:00, 0:13)
<i>The Sports Docs Podcast</i>	29:23 (22:00-37:00, 5:06)
<i>International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS)</i>	35:26 (18:00-98:00, 24:11)
<i>Peds Sports</i>	36:20 (9:00-66:00, 19:09)
<i>The Sports Medicine Orthopod</i>	39:50 (11:00-104:00, 22:22)
<i>Sports Medicine on Tap</i>	41:04 (6:00-71:00, 15:52)
<i>Pediatric Sports Medicine Podcast</i>	49:08 (31:00-63:00, 10:24)
<i>Victory Over Injury Podcast</i>	1:49:13 (90:00-148:00, 19:04)

weekly manner (9, 60.0%), followed by a sporadic “other” pattern (3, or 20.0%), then monthly (3, or 20.0%) (Table 2). Ten podcasts (66.7%) had a variety of guests featured on their shows, which often included experts from other fields in or related to sports medicine (e.g., athletes, physical therapists, and chiropractors). Other types of guests included almost exclusively orthopaedic surgeons (3, or 20.0%) or recent journal article authors (2, or 13.3%) (Table 2). General topics in sports medicine (e.g., managing sports injuries, rehabilitation) was the most common topic discussed on a podcast (7, or 46.7%), followed by discussions on literature (5, or 33.3%) and daily life and athletics (3, or 20.0%) (Table 2).

Instagram was the most popular platform among the platforms searched for social media engagement. There were multiple instances of some podcasts not having an account on one or more of the platforms, with all averages and ranges shown in Tables 3 and 4. The average episode length across all podcasts was 21:47 (minutes:seconds) (SD: 17:17, range: 11:02–1:49:13) (Table 5). The *British Journal of Sports Medicine* had the largest social media presence and engagement. Of note, a higher presence was seen on Facebook, but more engagement was seen on Instagram.

Discussion

Most orthopaedic sports medicine podcasts followed a weekly release schedule with an average run time of 21:47. The presence of sports medicine podcasts on social media was variable; however, we found that Facebook had a higher number of followers, while Instagram had more audience engagement. All of the podcasts had featured guests, with most podcasts discussing a variety of educational and athletic topics. General topics in sports medicine were most often covered; however, some podcasts focused on daily life

and athletics, while others were journal-sponsored and highlighted recently published articles.

Technology has and will continue to affect the way we hear, learn, and disseminate information. This is no less true for the medical field, which has seen an explosion in the use of various forms of media for information sharing, one of which is podcasting. With lower barriers of entry to publishing compared to traditional content, podcasting is a widely accessible medium for sharing information.¹² Multiple prominent orthopaedic sports medicine journals, including the *British Journal of Sports Medicine*, the *American Journal of Sports Medicine*, and *Arthroscopy* have active podcasts. Nonorthopaedic focused medical journals as well, including *The New England Journal of Medicine* and *The Lancet*, have produced podcasts to discuss contemporary issues in medicine.^{17,18} The *NEJM Interviews* podcast alone has over 600 episodes available for free on Apple Podcasts.

The rise in medical podcasting is especially well documented in the field of emergency medicine (EM).^{2,5,19} In 2019, Berk et al. found that EM residency programs, in particular, among the specialties have formally integrated digital education resources, with 88% of EM residents listening to medical education podcasts at least once per month.¹ In this study, there was an increase from one active orthopaedic sports medicine podcast in 2013 to 15 by July 24, 2021. A weekly episode release schedule was most common, with a wide variety of guests. Incorporating interviews with guests from a variety of backgrounds, such as physical therapists and former professional athletes, may contribute to a podcast’s success as it provides new perspectives and can help foster good rapport to contribute to the general quality of conversation.¹² In 2017, a survey done by Cosimini et al. found that 25 of 27 residents (93%) prefer a dialog-driven educational

format for podcasts.²⁰ However, up to 29% of podcasts do not include interviews as part of their format.^{14,17,20–22} In our study, all podcasts had a consistent guest presence, which may have contributed to why the selected podcasts remained active.

The ideal podcast length for keeping listener attention is between 10 and 20 minutes per episode.^{14,17,19,20} Studies have demonstrated that learner attention, at least in conventional lecture settings, wanes after 10 minutes.²⁰ A study by Little et al., which evaluated podcasts among 19 medical specialties, found that orthopaedic surgery had the shortest average podcast time at 15.4 minutes per episode.¹³ In our study, the average episode length was 21:47 (range 11:02–1:49:13).

Social media has shown to be increasingly effective in the promotion of health equity.^{4,23} In the realm of podcasting, social media plays an integral role in allowing creators to not only promote content, but to integrate other forms of media, as well such as literary sources, web pages, or video series.¹⁹ Facebook, Instagram, and Twitter are among the largest social media platforms used today, especially by those under 30 years of age.²⁴ Of the three platforms evaluated in this study, Instagram had the highest average engagement among podcast listeners. While Facebook has a higher user base among the U.S. population, it is less used for interaction compared to relatively smaller platforms, such as Instagram, whose users are shown to have the most brand community engagement of the three studied platforms despite its size.^{25,26} In our study, 13 (86.7%) of the podcasts had a presence on at least one of the three social media platforms evaluated. Multiple podcasts had social media accounts with thousands of followers as well, with *British Journal of Sports Medicine* having over 100,000 on Facebook, giving an indication of the level of reach of these podcasts.

Importantly, seven (46.7%) of the 15 podcasts released their first episode within the past 12 months. This rise mimics the rapid shift in orthopaedic education that has occurred since the onset of the COVID-19 pandemic.^{14,16} Virtual meetings supplanted in-person gatherings, distance learning became part of curricula at universities, and many orthopaedic societies added educational resources to their online platforms.^{16,27} A dramatic slowing and cancellation of many elective procedures may have afforded more surgeons time to engage in other ways with colleagues and educators.¹⁵

Podcasts are beneficial additions to existing medical education curricula.^{14,16,28,29} In a national U.S. survey study conducted from October 2017 to March 2018 of 374 orthopaedic surgery residents, 11.1% reported using podcasts as an educational resource in their training.³⁰ Depending on the specialty, up to 88% of

residents state they listen to medically relevant podcasts.¹¹ Podcasts are frequently used in place of textbooks and are often rated as being more helpful.³¹ However, there are very few orthopaedic podcasts that are oriented to the education of trainees, with most of them intended instead for patient education.³² In 2021, Raja et al. found that, of 492 identified online websites with only orthopaedic content, only 16 (3.3%) were directed for orthopaedic learning and not patient education.³² Of 22 orthopaedic podcasts specifically found in their search, only 9 with similar characteristics were used for final analysis.³² Little et al. found that orthopaedic surgery ranked 13th in the category of most total podcast episodes and 15th in the category of most estimated hours of podcasting content among 19 researched specialties as of 2020.¹³ Given the rise in orthopaedic sports medicine podcasts found in this study and the shift to more online education as a result of the COVID-19, we anticipate increases in the use of podcasts by orthopaedic trainees.

Limitations

There are several limitations to our study. First, the methodology used to determine which podcasts focused on orthopaedic sports medicine was subjective, although this was mitigated by confirming between two independent coauthors. The quality of the podcasts as they relate to orthopaedic sports medicine was inconsistent, given variability in content between episodes and the tendency of many conversation-based podcasts to go off topic. A further challenge was in ensuring a thorough search of all podcasts as they relate to orthopaedic sports medicine, although we used one search term across three popular platforms. A final limitation was determining accurate numbers for podcast episode count and start dates, as there were inconsistencies between the host platforms (Google, Apple, and Spotify), and even on the social media pages for the individual podcasts.

Conclusion

This study found that episodes are typically released weekly and average 21 minutes, 47 seconds long, with most covering a wide array of topics in sports medicine. The Facebook accounts of these podcasts displayed higher numbers of followers compared to other social media platforms; however, Instagram was superior for engagement.

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