Orthopaedic Surgery Subspecialty Podcast Disseminates Peer-Reviewed Articles More Effectively than Traditional Online Publishing

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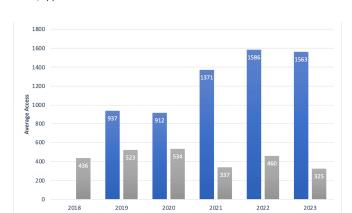
INTRODUCTION: Podcasts have become increasingly utilized in medical education over the past decade, especially in orthopaedic surgery. Compared to more traditional learning tools, podcasts are easily accessible, free, and capable of use while multitasking. Despite these apparent benefits, the effectiveness of podcasts as an educational tool is not well understood. The Peds Ortho Podcast is the official podcast of Pediatric Orthopedic Society of North America (POSNA) and is hosted by four POSNA members who are fellowship-trained pediatric orthopaedic surgeons. The podcast highlights recently published peer-reviewed articles through author interviews and executive summaries of featured articles. The purpose of this study was to compare the distribution of the Peds Ortho Podcast to traditional media by comparing electronic "access" statistics between the podcast episodes and the journal articles they summarize.

METHODS: All published Peds Ortho Podcast episodes from inception to present (May 2019 to April 2023) were included. Podcast episodes were reviewed to catalogue the abstracts and articles discussed therein. Because podcasts and articles utilize different electronic metrics to track distribution, we established a common metric of an "access," which we defined as an "intent to consume the media." For articles, we defined an "access" as the largest value of a publisher's online metrics, be it abstract views, full text views, or article downloads. For podcast episodes, we defined an "access" as any play >1 second. An automatic download of a podcast episode without a play did not count as an "access." Apple Podcasts for Creators, Spotify for Podcasters, and Podbean were all queried to identify podcast episode metrics. Online publisher and journal websites were queried to identify article access metrics. A conference abstract was excluded for analysis if it did not have an associated published paper. An independent samples t-test was performed to observe whether there is a significant difference in the average access between podcast episodes and articles.

RESULTS: Eighty episodes of the Peds Ortho Podcast have featured 333 published, peer-reviewed articles to date. Of these published articles, 303 were included in the final analysis as article metrics were not available for 30 articles. Since 2019, there have been 98,095 combined accesses of the podcast. The articles highlighted across the podcast have been accessed electronically 145,981 times over the past five years. The podcast featured an average of 4.2 articles per episode. There were significantly more mean electronic accesses per podcast episode than featured articles (1,226 vs. 481, p<0.001; Figure 1). The most recent podcast episodes have more accesses, whereas older articles have the most accesses.

DISCUSSION AND CONCLUSION:

This is one of the first studies to examine the effectiveness of an orthopaedic surgery subspecialty podcast by cataloging its distribution and consumption. Episodes of the Peds Ortho Podcast have more average electronic accesses than corresponding peer-reviewed articles. Unlike traditional media, podcast episodes have a substantial proportion of accesses soon after publication, while peer-reviewed articles gain more accesses the longer they are in circulation. Podcasts likely serve a complimentary role to traditional media by quickly disseminating main points and raising awareness of emerging research. Given that podcast electronic access is comparable to traditional media, podcasts seem to be a valuable educational tool for members of subspecialty societies.

Figure 1. Average Accesses of Peds Ortho Podcast episode compared to featured peer-reviewed articles, by year