Spine surgeons using Instagram aim to reach patients with #endoscopicspinesurgery

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# Intro / Aims

- Social media is becoming increasingly popular within healthcare
  - Potential Benefits:
    - Increasing provider accessibility
    - Connecting with patients
    - Spreading accurate medical knowledge
    - Advertising healthcare provider education
    - Curating surgeons' and medical facilities' reputations

- Aims:
  - 1. To understand the ways medical professionals currently use Instagram
  - Create guidance for medical professionals wanting to better utilize social media
- We specifically looked at #endoscopicspinesurgery to analyze content related to endoscopic spine surgery



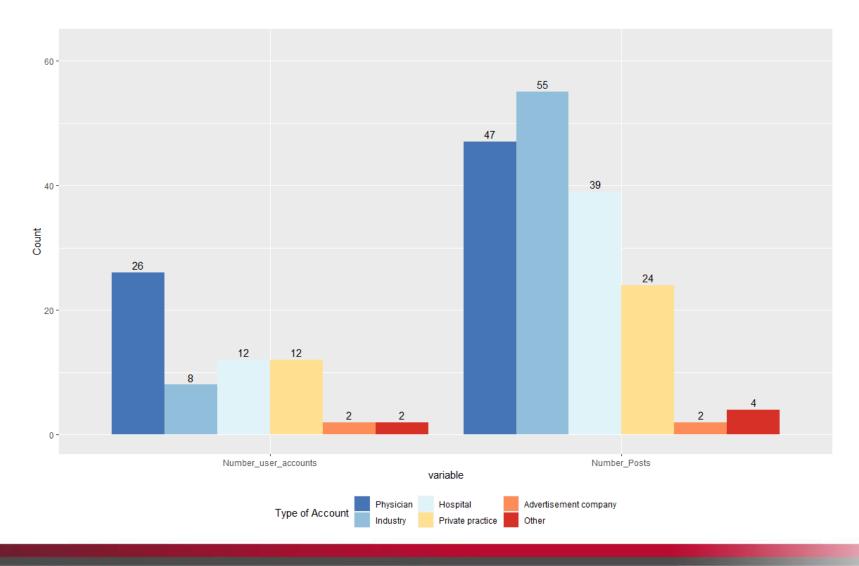
### Methods

- Public Instagram posts tagged with #endoscopicspinesurgery, published between Jan 1-March 31, 2022
- 171 posts created by 62 unique Instagram accounts
  - Data collected:
    - Number of followers
    - Number of users they follow
    - Type of account
    - Type of medical professional
    - Post content
    - Hashtags
    - Number of likes
    - Number of comments

- Engagement calculated two ways:
  - Engagement Rate = [(likes + comments)/(number of followers)] \* 100
  - 2. Sum of likes and comments



### Medical Professionals use #endoscopicspinesurgery

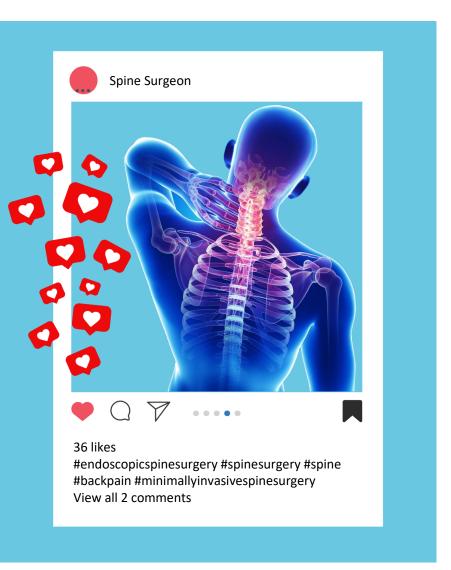


- The majority of <u>accounts</u> posting with #endoscopicspinesurgery are physicians
  - 60% spine or orthopedic surgeons, 25% neurosurgeons, 10% pain management, 5% other
- The majority of <u>posts</u> are from industry
- Medical professionals published an average of 1.85 [SD 1.76] posts per user (range 1-8 posts)



#### Engaging Posts

- Average of 35.84 [SD 53.39] likes and 1.47 [SD 2.37] comments
- Number of comments positively associated with the number of likes (p< 0.001)
- Commonly co-occurring hashtags included:
  - #spinesurgery
  - #spine
  - #backpain
  - #minimallyinvasivespinesurgery
- Rarely co-occurring hashtags included:
  - #patientswhoflourish
  - #bestspinesurgeon
  - #teamwork
  - #runchangesyourbrain

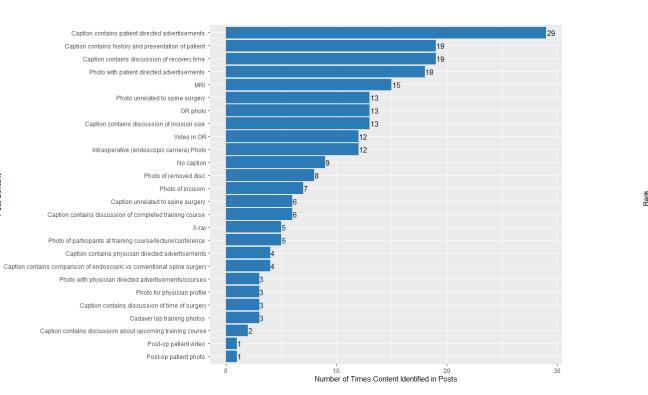




#### Average likes + comments

- 116.00, n=3, Photo for physician profile 113.67, n=3, Cadaver lab training photo
- / 113.07, 11–3, Gadaver lab training photo
- 88.00, n=5, Photo of participants at training course/lecture/conference
- 76.00, n=6, Caption contains discussion of completed training course
- 64.23, n=13, OR photo 57.67, n=3, Photo contains physician directed advertisements/courses
- 52.29, n=7, Photo of incision
- 51.00, n=1, Post-op patient photo
- 50.00, n=4, Caption contains physician directed advertisements 47.13, n=8, Photo of removed disc
- 40.26, n=19, Caption contains history and presentation of patient 37.47, n=15, MRI
- 36.15, n=13, Caption contains discussion of incision size
- 31.50, n=12, Intraoperative (endoscopic camera) photo
- 31.50, n=12, Video in OR
- 31.33, n=3, Caption contains discussion of time of surgery
- 28.53, n=19, Caption contains discussion of recovery time
- 26.20, n=5, X-ray
- 25.89, n=9, No caption
- 21.25, n=4, Caption contains comparison of endoscopic vs conventiona
- 21.14, n=29, Caption contains patient directed advertisements
- 17.00, n=1, Post-op patient video
- 9.22, n=18, Photo contains patient directed advertisement
- 8.00, n=2, Caption contains discussion about upcoming training course
- 5.83, n=6, Caption unrelated to spine surgery
- 4.77, n=13, Photo unrelated to spine surgery

Engagement Score



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10 0 -10 -20

Rank Difference

20

Caption contains history and presentation of patient , 6.84 Photo contains physician directed advertisements/courses, 6.81 Intraoperative (endoscopic camera) photo, 6.69 Video in OR, 6.69

Caption unrelated to spine surgery, 8.51

Cadaver lab training photo, 15.11

OR photo, 11.24

Photo of incision, 8.47

MRI, 7.13

X-ray, 4.59

Photo of removed disc, 8.05

- Caption contains discussion of incision size, 6.08 Caption contains discussion of recovery time, 6.05
- Photo unrelated to spine surgery, 5.81

Average engagement score

Caption contains discussion about upcoming training course, 15.95

Photo of participants at training course/lecture/conference, 14.45

Caption contains discussion of completed training course, 12.42

Caption contains comparison of endoscopic vs conventional, 8.96

Caption contains patient directed advertisements, 8.88

- Caption contains physician directed advertisements, 5.68
- Photo for physician profile, 5.65
- Photo contains patient directed advertisement, 5.06

  - No caption, 3.89 Caption contains discussion of time of surgery, 3.70
  - Post-op patient photo, 2.67
    - Post-op patient video, 1.64



### Physician profiles received the highest average likes + comments



#### peterdermanmd · Follow

peterdermanmd A golden endoscope! I'm proud to have been awarded this achievement award for my work in the field of endoscopic spine surgery.

For anyone unaware of this game-changing technology, here is a quick primer: Unlike traditional techniques that require opening up the body to access the spine, endoscopic spine surgery is performed using a narrow camera inserted via a skin incision smaller than a dime. The surgeon can see the spine from within and remove pressure from pinched nerves using micro-instruments. Once this is complete, patients get a stitch under the skin and a glorified Band-Aid. They are comfortably home within hours, often with immediate and dramatic improvement in their symptoms.

#endoscopic #minimallyinvasive #spinesurgery #endoscopicspinesurgery #spinehealth #backpain #sciatica #neckpain #radiculopathy #herniateddisc #spinalstenosis #spondylolisthesis #spine #surgery #backsurgery #spinesurgeon #artificialdiscreplacement #orthopedicsurgery #neurosurgery #spinalsurgery #joimax @joimax\_international @texasback @texashealth @texashealthsurgery @isass\_official @globusmedicalinc @nassspine @aospine\_global @nuvasiveinc @aospinena @degenmedical @minimallyinvasivespinesurgery @integrityimplants #dallas #plano #frisco #texas

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#### peterdermanmd · Follow Plano, Texas

peterdermanmd Spine surgeon. Husband. Father. Super model?

Well, maybe not quite, but it is still pretty cool to have my mug on the cover of ON Magazine! The ensuing article does a great job detailing the benefits of endoscopic spine surgery and the efforts we have taken to bring this game-changing technology to our patients.

Read more here:

https://issuu.com/onmagazinetx/docs/onmagazine-health21issuu/18

#supermodel #endoscopic #spinesurgery #minimallyinvasive #spinehealth #backpain #sciatica #neckpain #radiculopathy #herniateddisc #spinalstenosis #spondylolisthesis #spine #surgery #backsurgery #spinesurgeon #artificialdiscreplacement #orthopedicsurgery #neurosurgery #spinalsurgery #healthcare #medicine #wellness #joimax @onmagazinentx @texashealthsurgery @texasback @texashealth #dallas #plano #frisco #texas #telemedicine

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72w bpbones What a pice 72w 1 like Reply — View replies (1)  $\heartsuit \bigcirc \checkmark$ 120 likes MARCH 24, 2021



Photos and captions about training course(s), lecture(s), and conference(s) received the highest average engagement rate and were among the top 5 content categories for both types of engagement







# OR photos ranked 5<sup>th</sup> for top average engagement and likes and comments





## Conclusion:

- Medical professionals published the majority of **#endoscopicspinesurgery** Instagram posts
- Posts with cadaver labs, ORs, courses/conferences received the greatest numbers of likes and comments
- The most published content was patient-directed advertising
  - Suggests medical professionals post public content on Instagram to connect with new patients
- This study helps reveal how individual medical professionals use Instagram specifically regarding endoscopic spine surgery

