Low Testosterone On Social Media: Application Of Natural Language Processing To Understand Patients’ Perceptions Of Hypogonadism

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Research Question

What are patients talking about online with respect to testosterone replacement therapy (TRT) and hypogonadism?

Methods

Data - Reddit
Retrospective
12/2015 – 05/2019
r/Testosterone (>37k participants)

Data - Twitter
Prospective
06/2019 – 09/2019
Contains text:
“low testosterone”
“low T”
“testosterone replacement”

Analysis
Computational Thematic Analysis
Natural Language Processing (NLP)

Men turn to social media to learn about symptoms of hypogonadism, interpretation of personal lab results, and associated cardiovascular risk.

>200k discrete social media posts analyzed
6,659 tweets
12,665 Reddit parent posts
186,670 Reddit comments

First study to leverage NLP-techniques to evaluate social media landscape surrounding hypogonadism and TRT.

Practicing physicians may do well to bring up online discussions during clinic consultations, to pull back the curtain and dispel myths.

Select Themes and Associated Word Clusters
Results of Lab Tests: “LH” “FSH” “Prolactin” “TSH”
Cardiovascular Risk: “Heart” “Attack” “Increase” “Risk”
Insults: “Boy” “Soy” “Beta” “Cuck” “Little”
Seeing a Doctor: “Doctor” “Treatment” “Prescribe” “Help”
TRT Administration: “Week” “Dose” “HCG” “Protocol”
Lifestyle Interventions: “Weight” “Diet” “Gym” “Sleep”