Entertainment Education: A New Paradigm for Public Health

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Outline

- Anti-vaccine Movement
- Entertainment Education
  - Misinformation Antidote
ANTI-VACCINE MOVEMENT
MMR Vaccine

- Andrew Wakefield
  - Link between MMR vaccine and autism
  - Paper retracted
  - Claims amplified by media
- Celebrities
- Vaxxed
Smallpox

• Variolation
  ➢ Spread to Europe
  ➢ Boston smallpox epidemic

• Vaccine
  ➢ Mandates in second half of the 19th century
  ➢ Anti-vaccination leagues in Great Britain and U.S.

Source: National Library of Medicine
We Prevent Cancer
Going Viral

- Shared to anti-vaccine FB group 9/15/2017
- 10,000+ DAV comments from 795 individuals
Purpose

Examined random subsample of 25% of DAV commenters

Research Questions

- Who are the people posting?
- What information do they post?
- How they are connected?

Used quantitative, social network, and qualitative analyses
Methods

• Examined *publicly* available posts, 2015-2017
• Quantitative analysis
  ▪ 8 socio-demographic variables
  ▪ 18 anti-vaccine variables
• Social Network Analysis
  ▪ Modularity to identify potential clusters
• Qualitative Analysis
  ▪ Grounded theory approach
Facilitating Connections

Majority were mothers
- 89% female
- 78% parents

Political affiliation
- 55% Pro-Trump
- 11% Pro-Bernie

Location
Only 5 in PA
36 states and 8 countries
24 in CA, 9 in Texas, 8 in Australia and Canada
Beyond MMR and Autism

Educational Material
- Studies supporting anti-vaccine claims
- Testimony from experts

Censorship, Cover-up
- Scientific and industry cover-up
- Motivation by profit
Four Subgroups

- Trust
Trust

National Vaccine Information Center
June 19 at 12:38 AM · 😬

How CDC Uses False Fears to Promote Vaccine Uptake
http://ow.ly/nZbJ30kyGNh

THEVACCINEREACTION.ORG
How CDC Uses False Fears to Promote Vaccine Uptake
The CDC is in charge of both recommending and promoting mandatory...
Four Subgroups

- Trust
- Alternatives

Hoffman et al. (2019) Vaccine.
Alternatives

NATURE'S 11 MOST POWERFUL ANTIBIOTICS

Your first line of defense against any illness or infection is your own immune system! These foods will super-boost your body's ability to fight any nasty bugs that come your way and will help keep you on top of your game all year long.

- Apple Cider Vinegar
- Garlic
- Ginger
- Horseradish Root
- Onion
- Habanero Peppers
- Oregano Oil
- Turmeric
- Echinacea (Herb)
- Raw Honey
- Colloidal Silver
Four Subgroups

- Trust
- Alternatives
- Safety

Hoffman et al. (2019) Vaccine.
Safety

If you mixed
Mercury,
Aluminum phosphat
Amonium sulfate, and
Formaldehyde with VIRUSES,
then got a syringe
and INJECTED it into your child
you would be ARRESTED and sent to JAIL
for child endangerment and abuse

Then WHY is it legal for doctor
to do it? and WHY would you let
them?

Educate yourself

Re-Think Vaccines
Four Subgroups of Anti-Vaccine

- Trust
- Alternatives
- Safety
- Conspiracy

Hoffman et al. (2019) Vaccine.
Conspiracy

Blue Cross Blue Shield pays your doctor a $40,000 bonus for fully vaccinating 100 patients under the age of 2. If your doctor manages to fully vaccinate 200 patients, that bonus jumps to $80,000.

But here's the catch: Under Blue Cross Blue Shield's rules, pediatricians lose the whole bonus unless at least 63% of patients are fully vaccinated, and that includes the flu vaccine. So it's not just $400 on your child's head—it could be the whole bonus. To your doctor, your decision to vaccinate your child might be worth $40,000, or much more, depending on the size of his or her practice.

AWAKEN TO OUR AWFUL SITUATION
Qualitative Findings

• Repeated memes and stories

• Common topics
  - Naturalness
  - Conspiracy
Other Common Health Topics

Conspiracy

- Anti-Technology
- Anti-Government
- Pro-Gun
- Pro-Trump
- Conspiracies

Naturalness

- Anti-Fluoride
- Pro-Marijuana
- Pro-Life
- Anti-GMO
- Holistic Living
- Animal Rights
- Vegan
- Homeopathic Remedies
- Toxins in Vaccines
- Anti-Monsanto
- Pro-Breastfeeding
- Anti-Circumcision
What’s Next?
ENTERTAINMENT EDUCATION: OVERVIEW
Entertainment Education

The average American watches 2,000 hours of primetime television and 104 hours of medical television each year.

The average American speaks to a health care provider for about 1 hour each year.
Entertainment Education

Previous studies suggest medical television programs may influence viewers’ health-related perceptions, knowledge, and behavior.

Exposure to fictional medical television and health: a systematic review

Beth L. Hoffman¹,², Ariel Shensa¹,², Charles Wessel³, Robert Hoffman⁴ and Brian A. Primack¹,²*
ER: Patient Navigators
ER Study

• Greater percent of exposed group:
  ✓ Identified cutting into cancer myth as false
  ✓ Correctly identified role of patient navigator
  ✓ Reported likely to recommend a patient navigator
  ✓ Reported likely to get screened or recommend screening for breast cancer

• Clips shown to Congress and used to help with passage of the Patient Navigator Act

Marcus et al. (2010)
**Code Black on Twitter**

- Viewers were actively engaged with medical aspects
- Tweeted medical questions to actors

**Medical Procedures**
- Why is surgery being done in the ICU? #JustAsking @CodeBlackCBS @CodeBlackWriter#CodeBlack
- Did she Nick his carotid artery??? #CodeBlack
- Dude stuck himself with that needle! The patient is HIV+!!!! #CodeBlack

**Health Professions**
- Respect for the nurses! Love Mama @IamLuisGuzman #CodeBlack
- All hospitals need doctors & nurses in their #ER as amazing as the staff at #AngelsMemorial.
- Finally a show that values the importance of RNs.. Thanks @CodeBlackCBS

**Real-life Motivation**
- CodeBlack is making want to recertify as a LA County EMT.
- #CodeBlack makes me so happy about my goals in life. I know that I'll be doing good for people.
- God I love #CodeBlack! Just makes me want to be a trauma nurse even more

*Hoffman et al. (2018)*
ENTERTAINMENT EDUCATION: MISINFORMATION ANTIDOTE
Don't worry Billy, it's only the measles: a mild illness in healthy children like you. Now get some rest and enjoy a week off from school.

FACEBOOK.COM/THEVACCINEMACHINE

MemeCenter.com
NEWS

'ER' UPROAR

BY NEWSWEEK STAFF ON 2/22/01 AT 7:00 PM EST

NBC's ER PROVOKES VACCINE "REACTION"

(UPDATE 5/5/01 - SIGN A GROUP LETTER OF PROTEST TO NBC - WE DID! GO TO http://vaccinationnews.com/instructions.htm FOR ALL THE INFORMATION!)
Why it matters that Madam Secretary is fighting vaccine misinformation

The show’s latest episode tackles a measles outbreak and the risks of vaccine hesitancy

By Rachael Recker | Mar 26, 2019, 1:56pm EDT

In last night’s episode of #MadamSecretary, we talked about the importance of vaccines. Please learn more about vaccinations & the power they have to help kids around the world from @UNICEFUSA here: bit.ly/2FAkHPg #VaccinesWork #UNICEF #UNICEFUSA
Thank you!

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