Tweetchats: Energizing Conversations in Healthcare

Helen V. Madamba, MD MPH-TM
Global Forum, August 24-27, 2015
• This presentation will summarize published research work on the utility of tweetchats in healthcare
40% penetration of social media
4 hours on SoMe daily
What is a tweet?

• A Tweet is an expression of a moment or idea.
• It can contain text, photos, and videos.
• Millions of Tweets are shared in real time, every day.

https://about.twitter.com/what-is-twitter/story-of-a-tweet
How to start?

Welcome to Twitter.

Connect with your friends — and other fascinating people. Get in-the-moment updates on the things that interest you. And watch events unfold, in real time, from every angle.

While taking sunset photos of Manila Bay, a free-spirited girl sits down and brings out beer to enjoy the view.

Tweet and photo by @betinalibre
10:37 PM - 12 Nov 2014

https://twitter.com/
How to start?

Helen Madamba
@helenvmadamba

Tweets: 2,350
Following: 84
Followers: 249
Favorites: 2,277

Tweets
- Helen Madamba @helenvmadamba · 11h
  AMAZING! #healthxph

Tweets & replies
- James Legan MD @jimmie_vanagon
  @giason @helenvmadamba @endocrine_witch thank you Gia & I think #healthxph is one of the best chats on twitter :)

https://twitter.com/helenvmadamba
How does twitter work?

• Create twitter account
• Follow people with shared interests using #hashtags
• Post valuable tweets
• Post links to websites or journals
• Post photos or videos
• 140 character tweets
Twitter allows you to multiply yourself

**Impressions**

No. of tweets/participant x no. of followers that participant currently has; added up for all participants
Maximize twitter!
#HealthXPH tweetchat Saturdays 9PM
What is a tweet chat?

• A tweet chat affords Twitter users the opportunity to engage in conversation with each other.

• A tweet chat can either emerge from a new community that coalesces around a particular subject or keyword, or serve to focus the conversation of an existing community.
### The #HealthXPh Influencers

<table>
<thead>
<tr>
<th>Top 10 by Mentions</th>
<th>Top 10 by Tweets</th>
<th>Top 10 by Impressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>@endocrine_witch 9,146</td>
<td>@giason 6,198</td>
<td>@yinkavidal 207,916,501</td>
</tr>
<tr>
<td>@giason 8,046</td>
<td>@endocrine_witch 3,958</td>
<td>@giason 42,903,833</td>
</tr>
<tr>
<td>@bonedoc 4,335</td>
<td>@bonedoc 2,678</td>
<td>@natrider 11,559,646</td>
</tr>
<tr>
<td>@yinkavidal 3,242</td>
<td>@yinkavidal 1,938</td>
<td>@nursefriendly 10,052,610</td>
</tr>
<tr>
<td>@cebudm 2,936</td>
<td>@ncxtstop1 1,537</td>
<td>@jbb 6,633,023</td>
</tr>
<tr>
<td>@jonclsh 2,674</td>
<td>@healthxph 1,480</td>
<td>@endocrine_witch 5,479,827</td>
</tr>
<tr>
<td>@nxtstop1 2,673</td>
<td>@nxtstop1 1,537</td>
<td>@drfarrell 3,088,098</td>
</tr>
<tr>
<td>@aneto 2,143</td>
<td>@nursefriendly 1,279</td>
<td>@teddybird 2,407,049</td>
</tr>
<tr>
<td>@teddybird 1,995</td>
<td>@anebell 887</td>
<td>@practicalwisdom 1,982,007</td>
</tr>
<tr>
<td>@natrider 1,604</td>
<td>@anebell 871</td>
<td></td>
</tr>
</tbody>
</table>

### The Numbers

- Impressions: 327,426,867
- Tweets: 41,288
- Participants: 2,400
- Avg Tweets/Day: 4
-Avg Tweets/Participant: 17

### Share Analytics

- Tweet: 0

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#HealthXPH Symplur Stats

1 Jan – 19 Feb 2015
Healthcare Social Media

• Healthcare social media is transforming the healthcare industry by removing old boundaries and flattening traditional hierarchies.
RESEARCH ON TWITTER
Why Academics REALLY Use Twitter

- Legitimize my web surfing.
- Avoid writing.
- How did you know I use Twitter?
- My account is anonymous.
- "Outreach" that does not involve coming into physical contact with other human beings.
- Read an article on Nature that said Academics use it for serious reasons.
- Look for a job in case I get fired/denied tenure.
- Gives me something to do during boring seminars.
- Gives me something to do during boring meetings.
- Gives me something to do while talking to boring students.
- Procrastinate.
- Gossip about people in my field.
- Hopefully interact with people I have an intellectual crush on.
Using twitter for research projects

Using twitter for research projects

• Tweet about each new publication
• Use hashtags (#) to make your materials more visible
• Twitter provides many opportunities for ‘crowd sourcing’ research activities
• Reaching out to external audiences
• Twitter can be used as a painless metric

Twitter as a source of information

To determine what information is relevant to individuals affected by disease
Type 1 DM on Twitter

Type 1 DM on Twitter

• In December 2014, Twitter search to sample in total 300 random tweets containing the hashtags #type1diabetes, #t1d, or #type1.

Type 1 DM on Twitter

Table 1 – Tweets and re-tweets by user profile

<table>
<thead>
<tr>
<th>Tweet emitter nature</th>
<th>Tweets on T1D</th>
<th>Re-tweets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals affected by T1D</td>
<td>160 (53.3%)</td>
<td>241 (41.8%)</td>
</tr>
<tr>
<td>Non-governmental organizations</td>
<td>37 (12.3%)</td>
<td>139 (27.6%)</td>
</tr>
<tr>
<td>Healthcare professionals</td>
<td>36 (12.0%)</td>
<td>14 (2.8%)</td>
</tr>
<tr>
<td>Private companies</td>
<td>32 (10.7%)</td>
<td>46 (9.1%)</td>
</tr>
<tr>
<td>Communication media</td>
<td>19 (6.3%)</td>
<td>36 (7.1%)</td>
</tr>
<tr>
<td>Information site</td>
<td>16 (5.3%)</td>
<td>28 (5.6%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>300 (100%)</td>
<td>504 (100%)</td>
</tr>
</tbody>
</table>

Type 1 DM on Twitter

- Knowing what the conversation on Twitter regarding type 1 diabetes (T1D) is about can help in understanding the kind of information relevant to the individuals affected by the disease.

Type 1 DM on Twitter

• The tweets posted by non-governmental organizations (NGOs), communication media, and individuals affected by T1D had higher number of potential readers.

Type 1 DM on Twitter

• More than a half of the tweets were posted by individuals affected by T1D, and their tweets were the most re-tweeted.

• The next most active users were NGOs and healthcare professionals.

Type 1 DM on Twitter

• Twitter could be used more actively by healthcare professionals to disseminate correct information about T1D.

Twitter as basis of program development

To determine what information needs of patients are to be able to develop social media programs that address those needs.
Gestational DM on Twitter

Content Analysis of Tweets of Pregnant Women with Diabetes

First Author/Corresponding Author:
Iris Thiele Isip Tan MD, MSc, University of the Philippines Medical Informatics Unit

Co-authors:
Helen V. Madamba MD, MPH-TM, Cebu Doctors University College of Medicine
Rene James P. Balandra Jr. BS Computer Science, University of the Philippines National Telehealth Center
### Gestational DM on Twitter

#### Diabetes in pregnancy

**N = 184**

<table>
<thead>
<tr>
<th>Perceived susceptibility</th>
<th>Perceived benefits</th>
<th>Cues to action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief about the chances of experiencing a risk or getting a condition or disease</td>
<td>Belief in efficacy of the advised action to reduce risk or seriousness of impact</td>
<td>Strategies to activate &quot;readiness&quot;</td>
</tr>
<tr>
<td>n = 15</td>
<td>n = 30</td>
<td>n = 22</td>
</tr>
<tr>
<td>Personal n = 10</td>
<td>Personal n = 20</td>
<td>Mechanical n = 4</td>
</tr>
<tr>
<td>Physical n = 2</td>
<td>Temporal n = 5</td>
<td>Personal n = 2</td>
</tr>
<tr>
<td>Temporal n = 3</td>
<td>Physical n = 5</td>
<td>Mechanical n = 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived severity</th>
<th>Perceived barriers</th>
<th>Self efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belief about how serious a condition and its sequelae are</td>
<td>Belief about tangible and psychological costs of the advised action</td>
<td>Confidence in one's ability to take action</td>
</tr>
<tr>
<td>n = 25</td>
<td>n = 51</td>
<td>n = 41</td>
</tr>
<tr>
<td>Personal n = 14</td>
<td>Mechanical n = 2</td>
<td>Activity n = 3</td>
</tr>
<tr>
<td>Physical n = 8</td>
<td>Personal n = 34</td>
<td>Mechanical n = 1</td>
</tr>
<tr>
<td>Temporal n = 3</td>
<td>Physical n = 12</td>
<td>Activity n = 27</td>
</tr>
</tbody>
</table>

#### Gestational diabetes

**N = 292**

<table>
<thead>
<tr>
<th>Perceived susceptibility</th>
<th>Perceived benefits</th>
<th>Cues to action</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 33</td>
<td>n = 50</td>
<td>n = 12</td>
</tr>
<tr>
<td>Personal n = 28</td>
<td>Activity n = 1</td>
<td>Mechanical n = 2</td>
</tr>
<tr>
<td>Activity n = 2</td>
<td>Mechanic n = 1</td>
<td>Personal n = 40</td>
</tr>
<tr>
<td>Location n = 1</td>
<td>Temporal n = 1</td>
<td>Physical n = 1</td>
</tr>
<tr>
<td>Mechanical n = 1</td>
<td>Temporal n = 7</td>
<td>Temporal n = 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived severity</th>
<th>Perceived barriers</th>
<th>Self efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 13</td>
<td>n = 144</td>
<td>n = 40</td>
</tr>
<tr>
<td>Personal n = 11</td>
<td>Activity n = 7</td>
<td>Mechanical n = 28</td>
</tr>
<tr>
<td>Physical n = 1</td>
<td>Temporal n = 12</td>
<td>Activity n = 3</td>
</tr>
<tr>
<td>Temporal n = 1</td>
<td>Location n = 3</td>
<td>Personal n = 28</td>
</tr>
<tr>
<td>Mechanical n = 2</td>
<td>Mechanical n = 2</td>
<td>Physical n = 3</td>
</tr>
<tr>
<td>Personal n = 104</td>
<td>Physical n = 16</td>
<td>Physical n = 4</td>
</tr>
</tbody>
</table>
Gestational DM on Twitter

- Tweets on gestational diabetes and “pregnancy and diabetes” on symplur
- Classified against the Health Belief Model
Gestational DM on Twitter

• Content analysis of tweets showed that women with GD and preexisting diabetes had differing perceptions of susceptibility, severity, barriers, benefits, cues to action and self efficacy; and shared links to information differently.
Twitter for health promotion

To provide a venue for discussion of sensitive health topics
Sexually transmitted diseases on Twitter

tweet Content Related to Sexually Transmitted Diseases: No Joking Matter

Monitoring Editor: Gunther Eysenbach
Reviewed by Tiffany Veinot, Mark Gilbert, D McDonnell, and Setu Patolia
Elia Gabarron, Psych, J Artur Serrano, PhD, Rolf Wynn, PhD, and Annie YS Lau, PhD

Sexually transmitted diseases on Twitter

• A total of 694 tweets were posted by 426 different users
• the hashtags and/or simple words “chlamydia” and/or “HIV”.

Sexually transmitted diseases on Twitter

- Serious tweets were most frequently posted
  - by the general media (20.6%, 128/620),
  - using a logo avatar (66.9%, 415/620),
  - identifiable accounts (85.2%, 528/620).

Sexually transmitted diseases on Twitter

• A total of 104 of these analyzed tweets were retweeted messages, belonging to 68 unique tweets.

• The content was
  • serious (99%, 67/68),
  • factual (90%, 52/58), and
  • about HIV (85%, 58/68).

Sexually transmitted diseases on Twitter

• Tweet content related to sexually transmitted diseases: no joking matter

• Social media such as Twitter may be an important source of information regarding STDs provided that the topic is presented appropriately.

Sexually transmitted diseases on Twitter

• Reassuringly, the study showed that almost 9/10 of tweets on STDs (chlamydia and HIV) were of serious content, and many of the tweets that were re-tweeted were facts.

Sexually transmitted diseases on Twitter

• The jokes that were tweeted were mainly about chlamydia, and posted by non-identifiable emitters.

• Social media should be used to an even larger extent to disseminate correct information about STDs.

What are health-related users tweeting?  
A qualitative content analysis of health-related users and their messages on twitter

What are health-related users tweeting?

- Twitter users in health-related fields tweet about both testable claims and personal experiences.

What are health-related users tweeting?

- Future work should assess the relationship between testable tweets and the actual level of evidence supporting them, including how Twitter users—especially patients—interpret the content of tweets posted by health providers.

Twitter use for professional purposes
ORIGINAL RESEARCH

Professional Use of Social Media by Pharmacists

Arden R Barry and Glen J Pearson

Professional use of social media by pharmacists

Objective: To characterize the use of social media by pharmacists in the Canadian province of Alberta and to identify independent determinants of and perceived barriers to using social media for professional purposes.

Online survey with 273 respondents in March and April 2014

More than 80% of pharmacists in Alberta reported that they had a social media account, and over half of them reported using their accounts for professional purposes.
Professional use of social media by pharmacists

• Although Facebook had a higher reported rate of utilization in general, a greater proportion of respondents reported using Twitter for professional purposes.

• Individuals and organizations seeking to expand their professional social media presence should focus on Twitter.

Twitter for support groups

To increase awareness and to decrease anxiety
Tweetchats as support group

Original Paper

Twitter Social Media is an Effective Tool for Breast Cancer Patient Education and Support: Patient-Reported Outcomes by Survey

Deanna J Attai1*, MD ; Michael S Cowher2*, MD ; Mohammed Al-Hamadani3*, MBChB, MPH ; Jody M Schoger4*

Alicia C Staley5* ; Jeffrey Landercasper3,6*, MD

Tweetchats as support group

• #BCSM community since July 2011
• investigate the efficacy of Twitter social media to provide education and support to breast cancer patients.

• pilot investigation assessing whether Twitter social media can provide education and psychosocial support to breast cancer patients.

Tweetchats as support group

- 206 survey responders
- Survey participants were asked whether participation “provided a safe and welcoming forum for support and education.”

Tweetchats as support group

- #BCSM
  - 52 of 183 responders (28.4%) reported subsequent volunteer efforts.

- For analysis of respondent reports of anxiety,
  - less than 50% of survey questions were excluded.
  - 189 analyzed for their recall levels of reported high/extreme anxiety before and after participation in the #BCSM tweet chats.

Tweetchats as support group

• significant decrease in the proportion of respondents with extreme/high anxiety level from 43 of 153 patients (28.1%) to 14 of 152 (9.2%, \( P < .001 \)).

• no respondents who initially reported “low or no” anxiety before participation reported an increase to “high or extreme anxiety” after participation.

Conclusion:
An association between Twitter participation and improvements in patient self-reported knowledge and anxiety was identified.

Twitter to establish connections
To influence healthcare
Top 50 Healthcare Influencers on Twitter

- Twitter is changing the way that people communicate and it is also helping people to network within their own industry.

- When you follow the right people on Twitter, you can get inside information that could help you to change your career.

[http://mhadegree.org/top-50-healthcare-influencers-to-follow-on-twitter/]
Top 50 Healthcare Influencers on Twitter

• Twitter is changing the way that people communicate and it is also helping people to network within their own industry.

• When you follow the right people on Twitter, you can get inside information that could help you to change your career.

• There are several people to follow on Twitter if you are in the healthcare industry, but there is a select number of influences that you must follow.

http://mhadegree.org/top-50-healthcare-influencers-to-follow-on-twitter/
Top 50 Healthcare Influencers on Twitter

#20 Gia Sison

Dr. Sison is a breast cancer advocate and very popular among healthcare Twitter circles

http://mhadegree.org/top-50-healthcare-influencers-to-follow-on-twitter/
THANK YOU!

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