Exploration of Using Social Media Technology for Pediatric Asthma Management
Anthony Panzera1,2, Mary Martinasek1,2; Tali Schneider1,2; James Lindenberger2; Carol Bryant1,2; Marisa Couluris3
1: Florida Prevention Research Center; 2: Center for Social Marketing; 3: USF Department of Pediatrics

Introduction
Asthma is a chronic lung disease that affects 7 million children nationally, costing the United States over $30 million annually as well as 14 million lost school days (1). In Florida, the life time prevalence rate for this incurable condition is slightly higher than the national average prevalence. Concomitantly, the use of social media technology in strengthening the self-management of chronic illnesses like asthma grows.

The goal of this research was to qualitatively detect perspectives, opinions, barriers and benefits among attending and resident physicians as well as parents/caregivers of asthmatic teens who attend a special university asthma clinic about best methods for utilizing social media technology in clinical pediatric asthma management.

Conclusions

- Doctors acknowledged the importance of self-management among their teen patients.
- Resident physicians see already connected to social media and modern communication technology like smart phones and text messaging.
- Both groups were concerned about time spent on these tools would be secured, reimbursed, and given devoted time from the work day.
- When clinicians questioned during the work day, physicians described that their connection to the internet during the work day could be utilized to communicate with and follow-up on patients.
- The method for gathering data from physicians through text messaging proved difficult.
- Current book themes are being refined for parent/caregiver data.

Methods

Qualitative research and social marketing methods were used to explore attending physicians’ and residents’ perceptions toward the incorporation of social media technology in adolescents’ asthma management.

Research was conducted during the fall of 2010 in an academic clinical setting with a convenient sample of pediatric attending physicians and pediatric residents. A total of 17 in depth interviews with residents and one focus group, one dyad and three individual interviews with attending physicians were conducted. Interviews were administered by graduate students from USF College of Public Health. The Institutional Review Board of the University of South Florida reviewed and approved this work.

All interviewees were given didactic instruction and experiential training on using the interview guide. Interview guides were developed by the research team and all interviews were recorded. Audio recordings were transcribed, uploaded to and analyzed in Nvivo 8.

Data analysis was completed using open coding method based on a codebook developed by the research team, and emerging and explored themes were identified. Utilized codebooks reflect initial marketing mix constructs.

Constant comparative methods aided transcript analysis and all transcripts were analyzed with finely-tuned codebooks. Sorted passages are reported after separate researchers individually read through coded passages and collaboratively compared each other’s notes and came to agreement on statements for reporting.

Observational research was used to identify and illustrate the situational factors that influence social network applications in the USF pediatrics health care system. Researchers followed pediatric residents and employed “time sampling” methods (i.e., “pinning” or texting pediatric residents and faculty during their work days at random and during frequent and regular intervals) to monitor the extent to which they have used social media during respective periods of time.

Results

Perception

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Personalization of the Content Physicians
  “I know, the problem is – it would be kind of have to be individualized because everybody’s using something different.”
  “Can they be personalized per patient, or do they have to be standardized and fit everybody, because that would make a difference?”

Update on Parents/Caregivers Data
Interviews with parents/caregivers has not been completed as of the date of creation of this paper:
- Eight parent/caregiver interviews are currently being analyzed.
- Interviews include:
  - Responses to questions regarding their teenagers’ histories with asthma
  - Activities permitted and prohibited by control status
  - Social networking, media, and technology use
  - Parental perceptions of the likelihood that teens would use proposed technologies for self-management.

References
(1) American Lung Association. Lung Disease. Available at:
Martinasek, M., Panzera, A., Schneider, T., Lindenberger, J., Bryant, C., Coulieris, M.
Attitudes, Beliefs, and Perceptions of Pediatric Healthcare Providers toward Using Social Media in Asthma Care: Utilizing Social Marketing Tools to Tailor Health Education, submitted to American Journal of Health Education (accepted)