From Online to In-person: Assessing the Effectiveness of Organic Web Content on Guiding New Patients to an Orthopedic Practice

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Questions that Led to Current Topic

"Could the way people search for information online have an impact on their choice of healthcare provider?"

"Can a healthcare provider or practice gain new patients simply by optimizing their website content?"

"Do providers who experience more web traffic also experience more new patient appointments?"

"How would people report that they found a healthcare provider?"

"Where can I find information on this topic?"

Lack of Literature

As research began, it became apparent that multiple sources had cited a lack of literature as it pertains to the topic of internet medical marketing. (1-7)

Research Questions

1. What, if any, impact does keyword density of a webpage have on the number of page views?

2. What, if any, relationship is there between web content and new patient appointments?

3. How did the new patients to the group during the 6 month study period report they found the practice?

Methods

- Approach
  - Quantitative non-parametric secondary data analysis of: web data, page view statistics, and number of new patient appointments
- Permission / IRB approval for secondary data analysis attained
- Organization of data into excel spreadsheets
  - Use of Google AdWords to aid in keyword density analysis
  - Flesch-Kincaid (F-K) used to evaluate web content readability
- RQ1 & RQ2 Spearman's Rank Correlation
- RQ3 Frequency Analysis

$$r_s = 1 - \frac{6\sum d^2}{n(n^2-1)}$$

Sample

Data collected from 12 full time orthopedic physicians

Between March 2013 – August 2013

- 49,143 Visitors to individual provider web pages
- 3,878 New patients were seen at the practice
- 1,615 Surveys collected
  - 866 Surveys met researcher defined criteria for inclusion in this study

Results

Between March 2013 and August 2013, the 12 orthopedic physicians had a combined total of 49,143 visitors to their individual web pages. During this time 3,878 new patient appointments were made. Surveys were distributed to these new patients, and of the 1,615 surveys collected, 866 met the researcher defined criteria set for this study. A critical Spearman value of 0.4965 was used for the sample size of 12 physicians. No relationship was found between web page keyword density and page views (R_s=0.19). No relationship was found between number of spelling and grammar errors on physician web pages and new patient appointments (R_s=0.08). A relationship was found between F-K grade level scores and number of new patient appointments (R_s=0.81). A relationship was found between number of web page views and number of new patient appointments (R_s=0.74)

Tables

Major Findings

Providers with a greater number of web page views are also likely to have greater numbers of new patient appointments.

Web pages with lower F-K reading level scores are also likely to have higher numbers of new patient appointments.

Weak keyword use was found, indicating there may be room for optimization of language used.

Total Web Page Views Per Provider
March 2013 - August 2013

New Patient Appointments Per Provider
March 2013 - August 2013
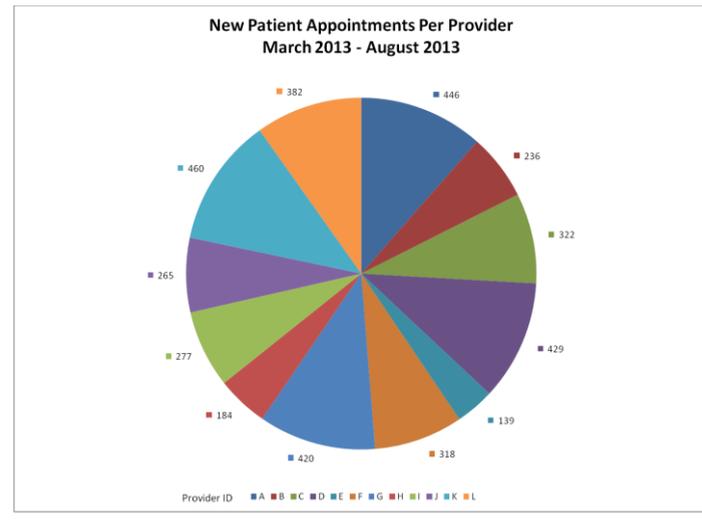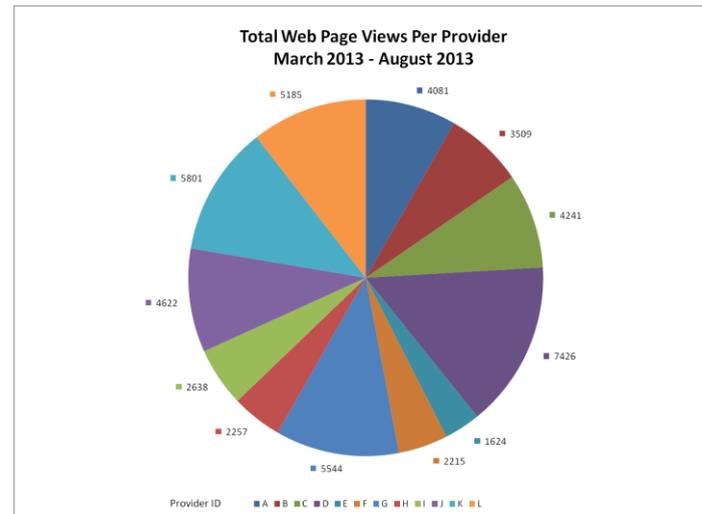
Conclusions

A webpage may serve as an effective marketing tool in communicating with new patients

An audit of current web content is suggested

Consider developing divisions of healthcare websites for both patients and professionals

Ensure web content is written for its target audience

Data mine existing new patient forms for search terminology

Review existing web content again to ensure use of basic keywords to describe what services you offer in simple, searchable terms

New Orthopedic Patient's Self Reported Modes of Referral
March 2013 - August 2013
(*N*=866)

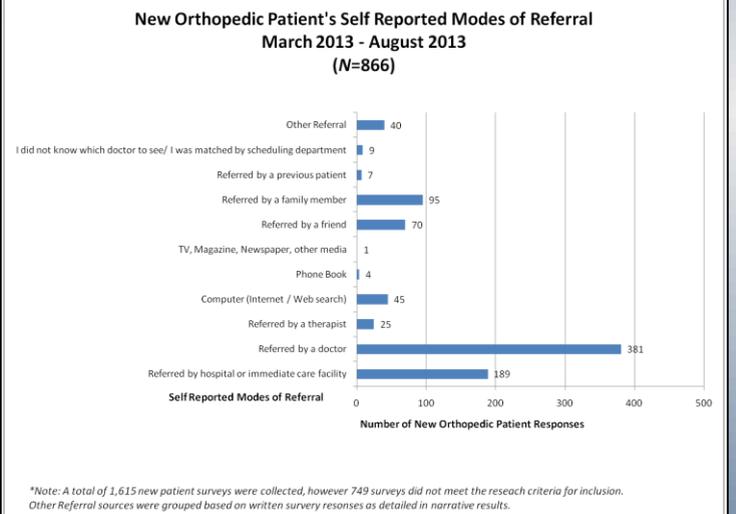| Self Reported Modes of Referral	Number
Other Referral	40
I did not know which doctor to see / I was matched by scheduling department	9
Referred by a previous patient	7
Referred by a family member	95
Referred by a friend	70
TV, Magazine, Newspaper, other media	1
Phone Book	4
Computer (Internet / Web search)	45
Referred by a therapist	25
Referred by a doctor	381
Referred by hospital or immediate care facility	189

*Note: A total of 1,615 new patient surveys were collected, however 749 surveys did not meet the research criteria for inclusion. Other Referral sources were grouped based on written survey responses as detailed in the narrative results.

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