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Speaking of Urgent Care Centers: Language Matters

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Abstract

With the adoption of the Affordable Care Act, it is necessary for health care facilities to focus on patient perceptions and care experience. The urgent care industry has grown exponentially as demand for more accessible patient services has increased. There is little research on how patients perceive their care experiences and what influences their satisfaction in the urgent care setting. The present study proposes a series of research questions exploring the relationship between language and ratings of urgent care facilities. This study aimed to: (1) identify which words were tied to patient experience, (2) identify the language used by satisfied and dissatisfied patients, (3) describe language used in high and low ratings of urgent care centers, and (4) examine a model of the relationships among words. Preliminary results support a proposed model of patient satisfaction that includes care delivery, staff behavior, and facility characteristics.

Keywords: qualitative, healthcare marketing, text analysis, consumer behavior, urgent care

Introduction

As the needs of healthcare grow and change, the myriad of venues available for the provision of healthcare have increased including the creation of urgent care centers (UCC). As UCC have grown in numbers, a concurrent rapid emergence of social media usage and marketing (He, Zha, & Li, 2013) have changed our understanding of how patient experience affects healthcare choices. The present study uses a qualitative model of patient behavior decisions to identify topics that are most important to patients in their choice of UCC.

The Urgent Care Industry

The urgent care medical business has grown at a steady pace as the number of urgent care centers (UCC) has increased from 8,000 in 2008 to 9,300 in 2013 with that number expected to grow to 17,000 in the next decade (Stem, 2005; Manley, 2013). As healthcare needs continue to shift, demand for more efficient care increases. UCC have arisen as the hospital emergency department (ED) is being stretched to capacity (O'Shea, 2007; Brody, 2013). Patients are actively avoiding the ED due to issues of access, crowding, delays, and cost (Hoot & Aronsky, 2008; Barish, McGauly, & Arnold, 2012). The American Academy of Urgent Care Medicine reports that UCC have become a viable solution to these concerns because these centers offer an alternative to waiting in the ED for hours (Mehrota et al., 2009). Estimates indicate that almost 27% of ED visits could be handled by UCC (Weineck, Burns, & Mehrota, 2010).

The Urgent Care Association of America (UCAOA) has defined urgent care as "the ambulatory or emergency medical care provided outside of an emergency department on a walk-in basis" (UCAOA, 2011). Additionally, the UCAOA views UCC as a health care provider that fills the gap between primary care physicians and hospital ED (Hutchinson, Corbie-Smith, & Thomas, 2004). These facilities and their personnel treat illnesses that are not severe enough to warrant a visit to the ED, however, they must be addressed before an appointment with a primary care physician can typically be scheduled. While the first UCC opened in the 1970s in the US, there was a decline in the 1980s before demand increased in the mid-1990s (Weinick and Betancourt, 2007). Recently, there has been enormous growth in this type of care center with two new UCC opening in the US every week (Stem, 2005).

While some may argue that patients could be served by primary care physicians more effectively than an ED, there are growing workforce concerns regarding primary care physicians (O'Shea, 2007). Recent studies project that 10,000 additional physicians will be needed to address the aging US population (Petterson, Liaw, Phillips, Rabin, Meyers, & Bazemore, 2012). While there have been calls for alternative solutions involving information technology, electronic communication, and nonphysicians (e.g. as nurse practitioners and physician assistants) (Green, Savin, & Lu, 2013) the trend in the healthcare marketplace has been to increase the number of UCC in addition to technological solutions in an effort to provide improved quality of care.

As ED crowding forces more Americans to use UCC services, financial and marketing factors influence patients' choice of which UCC to utilize for their healthcare needs. Hospitals view UCC as a potential cost saving measure to shift expenditures from the ED to an outside facility with a lower likelihood of readmission (Green, Savin, & Lu, 2013). Studies have indicated that UCC provide lower cost care than traditional primary care physician offices (Mehrota et al., 2009; Yee, Lechner, & Bouchus, 2013). These benefits underpin the trend towards UCC utilization (Brody, 2013). As consumers gain more control over their choice of

provider, the healthcare market is beginning to resemble a traditional consumer market driven by word of mouth (Buntin et al., 2006). While early research has shown that UCCs are serving a growing market need, the literature has yet to address social media as a driver of consumer choice in the healthcare industry (Wang, Ryan, & Mehrota, 2010).

Social Media

Just as the healthcare landscape has changed due to the ED crisis, the increased use of social media by patients and physicians has changed the marketing of healthcare products and services (Ottenhoff, 2012). Rather than patients consistently traveling to the same primary care provider, patients are more likely to first research and select a care provider based on online reviews (Sarasohn-Kahn, 2008). As UCC patients transform into social media savvy consumers the need for hospitals and related care centers to be aware of social media reviews is of the highest importance (Griffis et al., 2014). The demands of the Affordable Care Act have created a marketplace where the patient is now a powerful consumer (Kocher, Emanuel, De Pearle, 2010). With the advent of the use of patient satisfaction in Medicare payments, the stage has been set for patient satisfaction to be of paramount interest to care providers at all levels. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey shows the government's commitment to providing higher quality patient care. According to the Center for Medicare and Medicaid Services, the "HCAHPS survey is the first national, standardized, publicly reported survey of patient perspectives of hospital care." The results of this survey will directly affect Medicare and Medicaid payments.

The Internet and increased social connectivity has affected how patients find and use medical data with up to a third of patients using social media for medical information (Ottenhoff, 2012). Consumers demand more control over their buying choices (Mangold and Faulds, 2009) and this includes healthcare options. Consumers are turning to the Internet and social media for health information as well as physician ratings (Sarasohn-Kahn, 2008). Positive and negative word of mouth, whether in verbal or written form, can severely affect financial outcomes for every customer service industry (Hoffman and Fodor, 2010). Previous consumer research has provided support for the idea that meeting or exceeding expectations leads to increased profits and sustained loyalty and repurchase intentions (Cronin and Taylor, 1992). These same principles and findings can be applied to the health care industry, and more specifically, urgent care providers (Lagu et al., 2010). With the growth in use of technology and social media, patients have become increasingly more informed and discerning with regard to the services they choose (McCarthy, Stock, & Verma, 2010). As consumers gain more information from a variety of sources (i.e. official company communications, word of mouth, electronic word of mouth) it has become increasingly important for industries to focus on service quality and satisfaction to ensure long-term success and financial growth (Ramasaran-Fowder, 2008; He, Zha, & Li, 2013).

A significant portion of the health care services research examines the relationships among perceived service quality, satisfaction, and behavioral intentions (Baird and Parasnis, 2011; Qin & Prybutok, 2013). While Qin and Prybutok (2013)'s study provided support for the relationship between service quality and patient satisfaction, it ignored the importance of written comments in understanding the patient experience. Research in areas such as training evaluation (Harman, Ellington, Surface, & Thompson, 2015) has shown the importance of written comments to understanding training participant experiences.

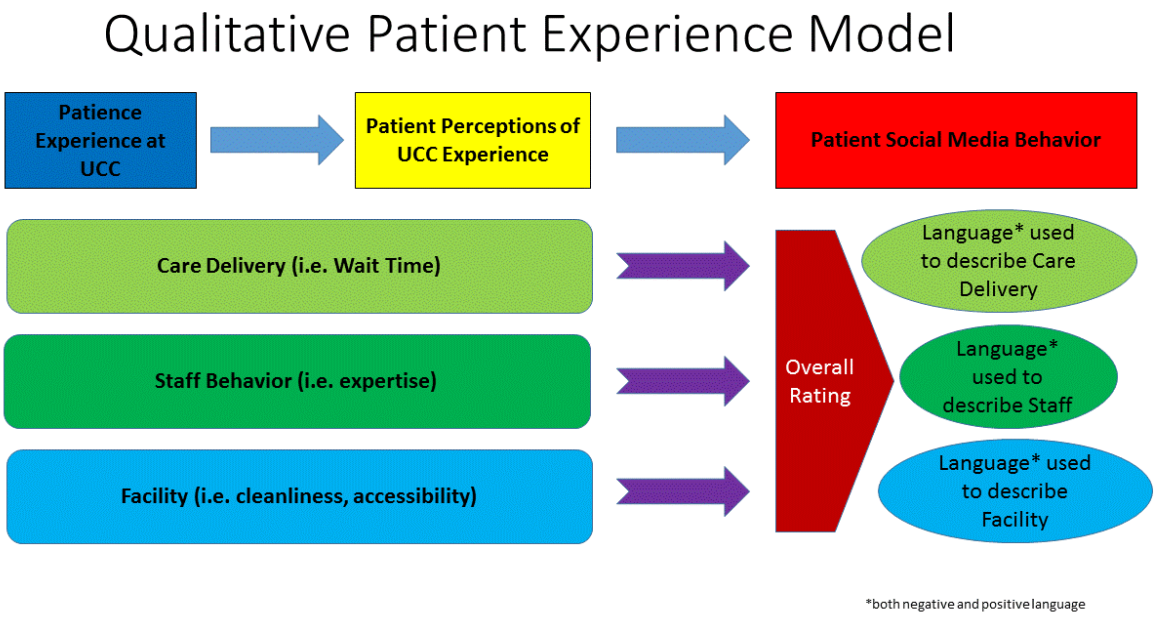
Social media presents a unique element to the promotional mix for companies (Mangold & Faulds, 2009). Where in the past an organization's communication with consumers was two-way, consumers can now use comments to communicate with one another via social media. While the focus of most marketing research is quantitative, recent research has shown the value of the rich, comprehensive and detailed data that can be obtained through text mining (He, Zha, & Li, 2013). These qualitative data can be used to gain an in-depth understanding of underlying reasons and motivations and to understand the drivers of consumer decisions.

Qualitative Model

Building off of Qin and Prybotok's (2013) work, we propose a qualitative model of patient behavior in the UCC setting (Figure 1). Patients experience care delivery, staff behavior, and the urgent care facility characteristics, which all affect their perceptions. These perceptions in turn lead to social media behavior where patients can provide numerous websites with an overall rating of the UCC. In addition to providing this rating, patients will then provide written comments that will reflect their experiences with care delivery, staff behavior, and the facility. While there has been much quantitative patient perception research in healthcare, additional qualitative data analyses must be conducted to understand better the rich and complex patient experience (Pope, Ziebland, and Mays, 2000). We sought to address the following research questions:

Research question 1: What writing style do patients use in describing their experiences?
Research question 2: What words are used most often to describe the patient experience?
Research question 3: What is the relationship among the words used to describe patient experiences?

Figure 1



Method

In order to understand the rich and complex language used by patients in describing their experiences, the researchers used a qualitative methodology, namely phenomenological inquiry. The researchers chose to specifically investigate patient reviews of UCC from prominent online sources including Google and Yelp. A random sample of 20 UCC from each of the five regions (Northeast, Southeast, Midwest, Southwest, and West) around the US were chosen for the analysis with a total of 100 UCC. For each facility, a random sample of both positive and negative reviews were taken, word for word, and entered into a spreadsheet to be used for qualitative analyses. Up to 20 comments were extracted for each UCC yielding a total of 995 comments. Along with the written comments posted by the patients, the numeric score associated with the comment was also recorded. Analyses were conducted using the qualitative analysis software program (Tropes version 8.4). Tropes is a text analysis software designed for semantic classification, keyword extraction, linguistic and qualitative analysis. It is available as a free software download and is a useful tool for information science, market research, sociological analysis, and medical research (Semantic-Knowledge.com, 2014).

Results

Initial qualitative analyses using Tropes led to findings that are to be expected with regard to the style of the writing put forth by patients as well as the settings they describe. Addressing research question 1, it was found that writing style was a mix of narrative and enunciative. The narrative component was decidedly ordinary, with a focus on individual experiences noting particular places and containing time references, and a prevalence of related words, phrases, and parts of speech. The enunciative element involved patients explaining their interactions and views of the events that transpired during their visit to the UCC. With that

information being considered and as expected, more in-depth qualitative evaluation of the patient reviews led the researchers to delve further into the analyses to investigate word associations and the strength of the relationships among them.

Notions of doubt were expressed quite often by patients, with a large portion of their doubt related to their wait times and interactions with the staff. The top terms referenced in the data (out of the 105624 words) were “health” (2840), “time” (2091), “organization” (628), “staff” (365), and “facility” (173). There were also high occurrences of words such as “urgent” (484), “great” (227), “friendly” (214), and “good” (162) in relation to the patient experiences. When analyzing language used to describe staff, there were significant linkages to both pleasant and unpleasant experiences and patients expressing both happiness and dissatisfaction with their time at the UCC. While some patient experience was linked to words such as “staff”, “secretary”, and “nurse”, there were much stronger relationships present with terms such as “doctor”, “money”, “service”, and “delay”. Similar to prior research (Lagu et al., 2010), concepts such as time, minutes and hours played a significant role in evaluations of UCC. Critiques of skills and care were strongly related to staff members and their behavior rather than to the overall UCC. While many relationships existed, those noted above had the strongest association with the expected factors comprising the patient satisfaction model.

Before conducting further analyses, numeric ratings from the various forums were dichotomously recoded as either high (average ratings of 3 and above) or low (average ratings below 3), and were inserted at the end of every user comment. With this additional qualitative information, the data were again loaded in Tropes 8.4 for analysis. A graph of actors revealed some unique findings (Figures 2 and 3). A graph of actors is a visual representation of the concentration of relations among the main actors in the whole of the text. More simply, it illustrates the strength of the relationships among the terms in the text.

When looking at the words most strongly associated with high (greater than 3 on a 5 point scale) and low (below a 3 on a 5 point scale) patient evaluations, it was found that the top twelve correlates for either type of review were the same. Those terms can be found in Table 1 which included “place” (i.e. clinic), “time” (i.e. day, minute), “staff” (i.e. doctor). Table 2 contains words that were unrelated to patient’s experience such as “immune system.” While not entirely unexpected, these results support the idea that certain parts of a patient's care experiences are the strongest influence on their evaluations of the quality of the care they receive. There is not one specific aspect that can create a positive experience, nor one portion that leads to a negative assessment. Not only does such a finding lend support to many of the customer service models (Qin & Prybutok, 2013; Parasuraman, Zeithaml, & Berry,1988; Buttle, 1996) but these findings also provide support for the present study’s proposed model.

Table 1
Top Words Found in Positive and Negative Reviews

Facility	**Care Delivery**	**Staff**
place	time	staff
clinic	day	doctor
room	minute	nurse
office	care	
	hour	
	insurance	
	money	

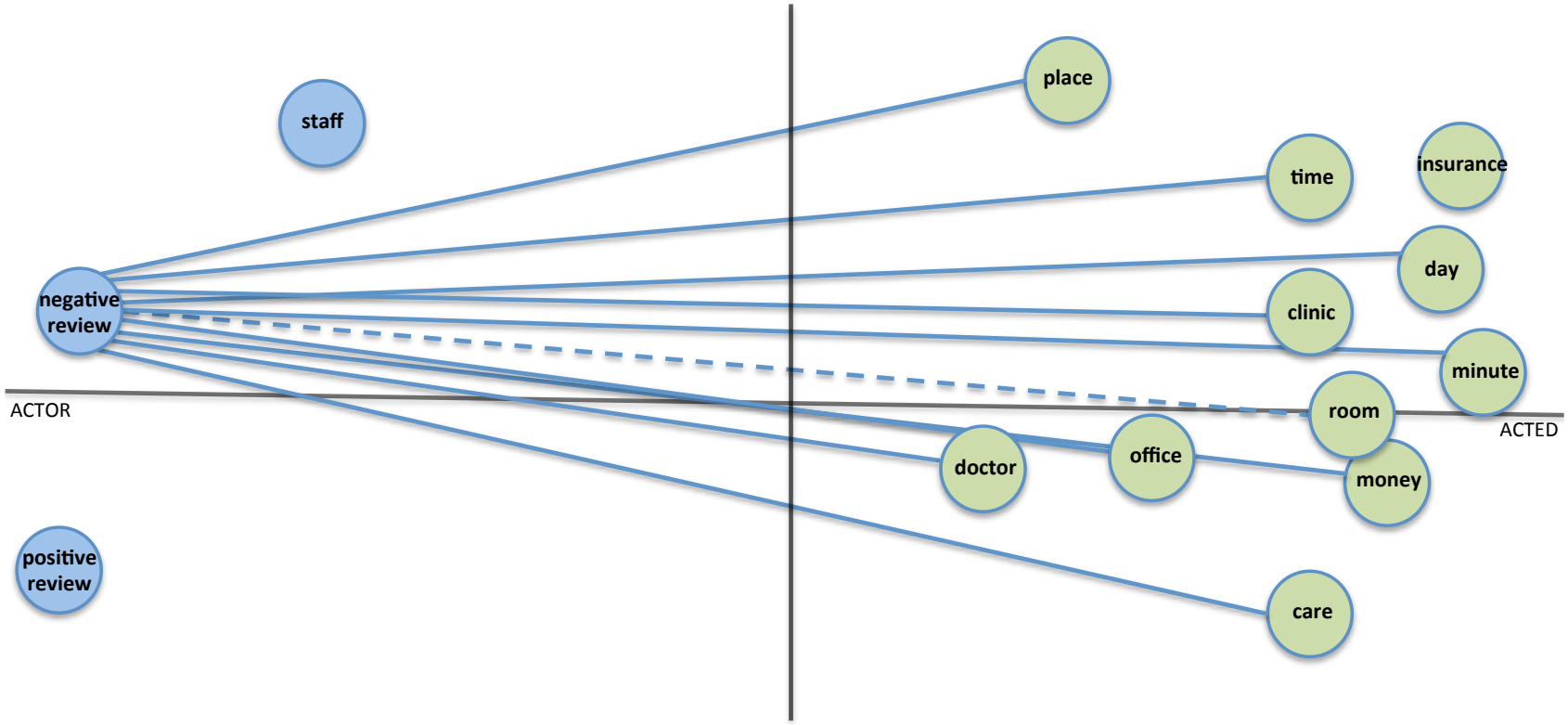
Table 2
Words Unrelated to Overall UCC Rating

nervous system
immune system
microorganism
bacteria
energy
drug addiction
organic chemicals
chemical analysis
prednisone
cortisone
credit card

Further analyses were conducted on the primary caregiver. Using a graph of actors, key terms such as "doctor" and "nurse" were investigated (Figures 4 and 5, respectively). At first, when looking at the words most strongly associated with "doctor", terms such as “time”, “day” and “minute” appeared often, along with “care” and “evaluation”. Many terms seemed to mimic those seen when evaluating positive and negative experiences such as “place” (i.e. “clinic”, “room”, “office”), “time” (i.e. “day”, “hour”, “minute”), “insurance”, “money”, “staff”, “doctor”, and “care”. These words had a relationship of similar magnitude when using "nurse" as the primary actor. Along with the previous results noting which parts of the patient experience exert the most influence on their evaluations, these findings bolster the idea that patients view the

Figure 2

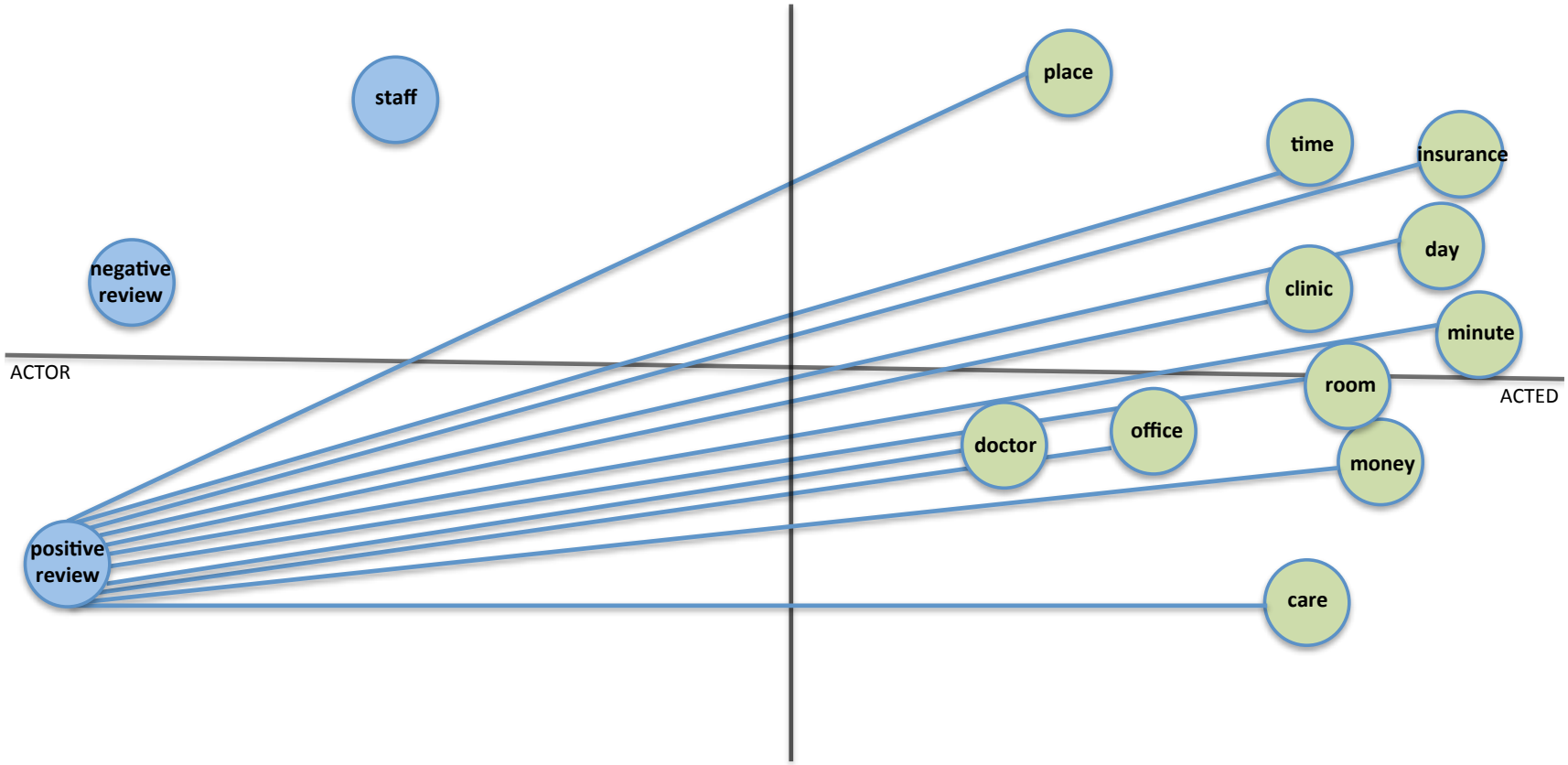
Graph of actors: Relationship of “negative reviews” to patient evaluation terms of interest



*This graph shows the concentration of relations between the main actors (actant/acted) and enables a visual comparison of the weight of relations between the main references.
**The X-axis shows the actant/acted ratio from left to right and the Y-Axis shows the concentration of relations for each of the reference words displayed. Solid lines are frequent relations while dotted lines show an infrequent relation
***The lines show the relations between the reference selected (bad reviews) and the other references displayed.

Figure 3

Graph of actors: Relationship of “positive reviews” to patient evaluation terms of interest



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***The lines show the relations between the reference selected (bad reviews) and the other references displayed.

doctor and nurse as key players during their visit. While this should come as no surprise, it reinforces the idea that training nurses and doctors on the importance of interacting with the patient and providing service that goes beyond the actual medical care/examination is essential. These words would be classified under the "staff behavior" construct in the qualitative model of patient experience.

As expected, a focus on accessibility, cleanliness, fair prices, efficient intake of patients, and quality care is always of paramount importance in the industry (Becker & Douglass, 2008; Bitner, 1990; Naidu, 2009). Accessibility, pricing, and cleanliness are contained within the "facility" construct of the model, while quality care and efficient intake are housed under the "care delivery" construct. Given the outcomes of this study a renewed focus on positive interactions, developing personal relationships, and clear communication can serve the industry well (Litvin, Goldsmith, & Pan, 2008; Nikolich & Sparks, 2013); these behaviors fall under the "staff behavior" construct in the proposed model. A look at past quantitative and qualitative models also supports the idea of empathy, professionalism, communication and interaction having a significant effect on ROI and on patient care outcomes (Lopez, Detz Ratanawongsa, & Sarkar, 2012; Qin & Prybutok, 2013; UCAOA, 2011). In summary, the findings of the current research support the idea that the language patients use to describe key aspects of their experience (care, staff, facility) is directly related to their overall rating of the UCC (Figure 1).

Discussion

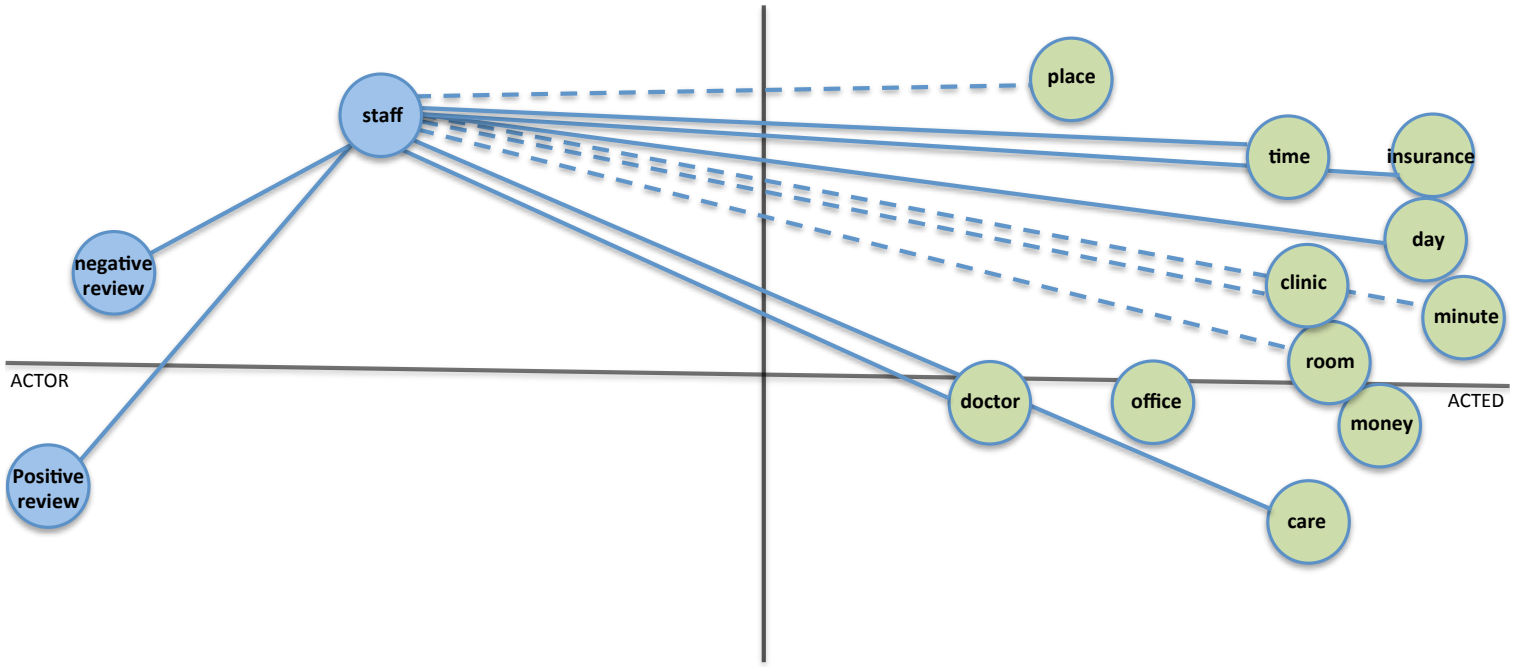
While prior research has used overt and direct questions through surveys with fixed choice or response scales to analyze patient experiences, the current study contributes to the research literature by taking a more phenomenological and naturalistic approach that allows for richer and more insightful qualitative data of the service model proposed by Qin and Prybotok (2013). While the results support the proposed model, further research is needed to understand the relationships between the variables identified in the patient experience model.

Modification of the software-generated list of associated terms would be a necessary and invaluable next step to attaining in-depth text analysis and building upon the model presented in this study. This type of analytic work goes hand-in-hand with that conducted using software such as QDA Miner and Yoshiicoder. Such software allows for the creation of word "dictionaries" and associations such that a user defined model of the relationships among terms in a selection of text can be used for separating out information of particular interest and supporting research hypotheses. Future research should attempt to develop dictionaries of words that are relevant to UCC service and purchases.

The study has two major limitations. First, the researchers were only able to access data on publicly used websites. It would be valuable to see consumer feedback that a UCC collects for its own purposes. Second, it may be valuable to follow the model illustrated by He, Zha, and Li (2013) and to conduct a social media competitive analysis to assess whether different UCC are more successful in their social media usage.

Figure 4

Graph of actors: Relationship of “staff” to patient evaluation terms of interest



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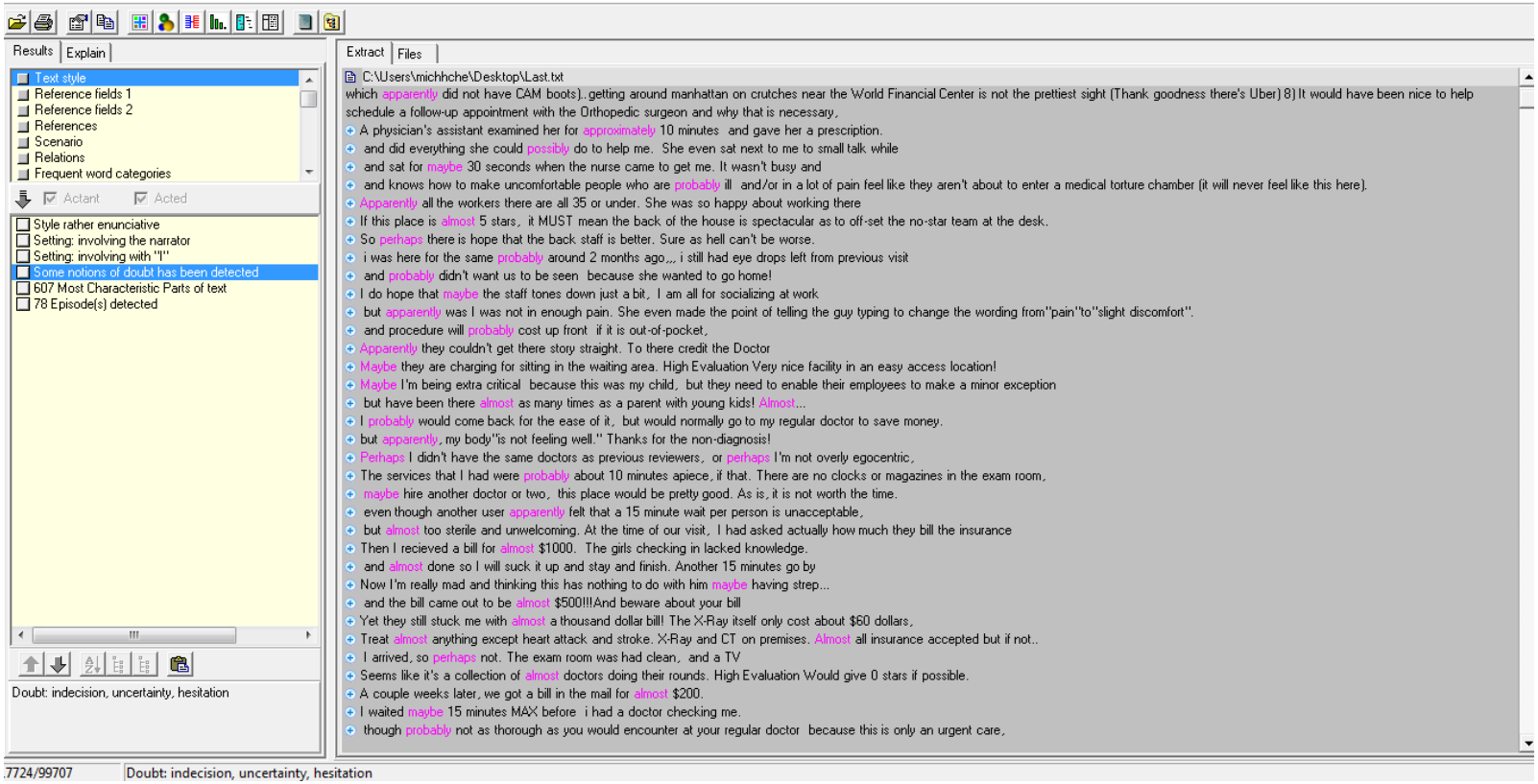
***The lines show the relations between the reference selected (bad reviews) and the other references displayed.

Figure 5
Preliminary Text Style Analysis or Overview of Text style analysis



Despite these limitations, the present study does address the importance and value of utilizing patient comments and electronic word of mouth for innovation and management in the UCC setting. These text analysis techniques are unique and provide a qualitative addition to more objective data (i.e. ratings). While the government and healthcare management may be interested in HCAHPS scores, real change and real innovation necessitates a richer and deeper understanding of patient experiences and perceptions that impact healthcare ratings. Text analyses such as the ones conducted in this research provide the engine by which patient concerns can be better understood and addressed. By analyzing more than just numerical ratings, healthcare professionals can gain insight into specific components of the service that are executed well and those that need improvement. This information can be optimally leveraged to improve services offered to UCC patients and increase their satisfaction and retention. Moreover, these insights can lead to better business decisions and the generation of new and innovative ideas in healthcare.

References

Andzulis, J.M., Panagopoulos, N., & Rapp, A. (2012). A review of social media and implicationsfor the sales process. *Journal of Personal Selling & Sales Management, 32* (3), 305-316. doi: 10.2753/PSS0885-3134320302 https://www.researchgate.net/profile/James_Andzulis/publication/275892008_James_Mick_Andzulis_Nikolaos_Panagopoulos_and_Adam_Rapp_%282012%29_A_Review_of_Social_Media_and_Implications_for_the_Sales_Process_Journal_of_Personal_Selling__Sales_Management_32%283%29_305-316/links/55490cd90cf205bce7ac00ba.pdf

Baird, C.H. , Parasnis, G. (2011) From social media to social customer relationship management.*Strategy & Leadership* 39, 30-37 doi:10.1108/10878571111161507 http://heuristic.kaist.ac.kr/cylee/xpolicy/TermProject/15/4.%20social%20media.pdf

Barish, R. A., Mcgauly, P. L., & Arnold, T. C. (2012). Emergency Room Crowding: A Marker of Hospital Health. *Transactions of the American Clinical and Climatological Association*, *123*, 304–311. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540619/

Brody, J.E. (2013, April 15). Avoiding emergency rooms. *The New York Times*. Retrieved from http://well.blogs.nytimes.com/2013/04/15/avoiding-emergency-rooms/?_r=0

Buntin, M.B., Damberg, C., Haviland, A., Kapur, K., Lurie, N., McDevitt, R., Marquis, M.S. (2006) Consumer-Directed Health Care: Early Evidence About Effects On Cost And Quality. *Health Affairs* 25, 516-530 doi: 10.1377/hlthaff.25.w516 http://content.healthaffairs.org/content/25/6/w516.full

Buttle, F. (1996) SERVQUAL: review, critique, research agenda *European Journal of Marketing*, 30, 8-32 https://www.researchgate.net/profile/Francis_Buttle/publication/235313579_SERVQUAL_review_critique_research_agenda/links/00b4951f74ab92bb5e000000.pdf

Centers for Medicare & Medicaid Services (n.d.) http://www.hcahpsonline.org *Retrieved November 15th,2015.*

Cronin JJ, Taylor SA. (1992). Measuring service quality: a reexamination and extension. *Journal of Marketing* 56, 55-68. https://www.researchgate.net/publication/225083621_Measuring_Service_Quality_-_A_Reexamination_And_Extension

de Brantes, F. (2013). Should Physician Pay Be Tied to Performance? *The Washington Post* Retrieved from http://www.wsj.com/articles/SB10001424127887323528404578454432476458370

Green, L.V., Savin, S., & Lu, Y. (2013). Primary care physician shortages could be eliminated through use of teams, nonphysicians, and electronic communication. *Health Affairs*, *32* (1), 11-19. doi: 10.1377/hlthaff.2012.1086 https://www.familymedicineteams.org/uploads/1/0/2/7/10277276/doc_shortage_teams_and_non_docs.pdf

Griffis, H.M., Kilaru, A.S., Werner, R.M. Asch, D.A. Hershey, J.C. , Hill, S. ,Ha, Y.P. Sellers,A, Mahoney, K., and Merchant, R.M. (2014) Use of Social Media Across US Hospitals: Descriptive Analysis of Adoption and Utilization *Journal of Medical Internet Research,* 16, p264-283 doi: 10.2196/jmir.3758 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4260061/

Harman, R. P., Ellington, J. K., Surface, E. A.; Thompson, L. F. (2015) Exploring qualitative training reactions: Individual and contextual influences on trainee commenting. *Journal of Applied Psychology*, 100, 894-916. http://dx.doi.org/10.1037/a0038380

He, W., Zha, S., Li, L. (2013) Social media competitive analysis and text mining: A case study in the pizza industry. *International Journal of Information Management* 33, 464-472 doi:10.1016/j.ijinfomgt.2013.01.001 https://www.researchgate.net/profile/Wu_He2/publication/257103444_Social_media_competitive_analysis_and_text_mining_A_case_study_in_the_pizza_industry/links/0046352e2fed3354f5000000.pdf

Hoffman, D.L., Fodor, M. (2010) Can You Measure the ROI of Your Social Media Marketing? *MIT Sloan Management Review* 52, 41-49 https://www.researchgate.net/profile/Donna_Hoffman2/publication/228237594_Can_You_Measure_the_ROI_of_Your_Social_Media_Marketing/links/552c11f50cf29b22c9c41cc1.pdf

Hutchinson, A. B. Corbie-Smith, G., Thomas, S. B. (2004) Understanding the patient's perspective on rapid and routine HIV testing in an inner-city urgent care center. *AIDS Education and Prevention*, 16 (2). pp. 101-114. http://health-equity.pitt.edu/333/1/Understanding_the_Patient_%28HIV_Testing%29.pdf

Japsen, B. (Jul 2, 2013). "Ouch! Patient Satisfaction Hits Physician Pay" *Forbes*. Retrieved from http://www.forbes.com/sites/brucejapsen/2013/07/02/patient-satisfaction-hits-physician-pay/

Kim , D. Jang , S., Adler, H. (2015) What drives café customers to spread eWOM?: Examining self-relevant value, quality value, and opinion leadership, *International Journal of Contemporary Hospitality Management*, Vol. 27 Iss: 2, pp.261 – 282

Kocher, R., Emanuel, E. J., DePearle, N.M. (2010). The Affordable Care Act and the Future of Clinical Medicine: The Opportunities and Challenges. *Annals of Internal Medicine* 153,536-539 https://monroecollege.edu/uploadedFiles/_Site_Assets/PDF/Kocher.2010.pdf

Lagu, T., Hannon, N. S., Rothberg, M. B., & Lindenauer, P. K. (2010). Patients' Evaluations of Health Care Providers in the Era of Social Networking: An Analysis of Physician-Rating Websites. *Journal of General Internal Medicine*, *25*(9), 942–946. http://doi.org/10.1007/s11606-010-1383-0 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2917672/

Litvin, S.W., Goldsmith, R.E. and Pan, B. (2008), "Electronic word-of-mouth in hospitality andtourism management", *Tourism Management* , Vol. 29 No. 3, pp. 458-468. http://www.panb.people.cofc.edu/pan/Managing_e-WOM.pdf

Lopez, A., Detz, A., Ratanawongsa,N., Sarkar, U. (2012) What Patients Say About Their Doctors Online: A Qualitative Content Analysis. *Journal of General Internal Medicine*. 27, 685-692

Mangold, W.G., Faulds, D. D. (2009) Social media: The new hybrid element of the promotion mix. *Business Horizons* (52), 357—365 doi:10.1016/j.bushor.2009.03.002 https://www.researchgate.net/profile/David_Faulds/publication/222415599_Social_media_The_new_hybrid_element_of_the_promotion_mix/links/00463532845a0100af000000.pdf

Manley, M., (2013, November 25). *Should your primary care practice expand into urgent care?* Retrieved from http://medicaleconomics.modernmedicine.com/medical-economics/content/tags/financial-advice/should-your-primary-care-practice-expand-urgent-care

McCarthy, L., Stock, D., & Verma, R. (2010). How travelers use online and social media channels to make hotel-choice decisions. *Cornell Hospitality Report* 10, 4-18 http://scholarship.sha.cornell.edu/cgi/viewcontent.cgi?article=1096&context=chrpubs

Mehrotra, A., Liu, H., Adams, J., Wang, M.C., Lave, J., Thygeson, N.M., Solberg, L.I., & McGlynn, E.A. (2009). The costs and quality of care for three common illnesses

at retail clinics as compared to other medical settings. *Annals of Internal Medicine, 151* (5), 321-328. doi:10.7326/0003-4819-151-5-200909010-00006 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2805258/

Nikolich, M.A. and Sparks, B.A. (1995), "The hospitality service encounter: the role of communication", *Hospitality Research Journal*, Vol. 19 No. 2, p. 43.

O'Shea, J.S. (2007, December 28). *The crisis in America's emergency rooms and what can be done*. Retrieved from http://www.heritage.org/research/reports/2007/12/the-crisis-in-americas-emergency-rooms-and-what-can-be-done

Ottenhoff, M. (2012, December 17). *Infographic: Rising Use of Social and Mobile in Healthcare.* Retrieved from http://thesparkreport.com/infographic-social-mobile-healthcare/

Parasuraman, A., Zeithaml, V.and Berry, Leonard (1988), SERVQUAL: A Multi Item Scale for Measuring Consumer Perception of Service Quality, *Journal of Retailing*, 64

Petterson, S.M., Liaw, W.R., Phillips Jr., R.L., Rabin, D.L., Meyers, D.S., & Bazemore, A.W. (2012). Projecting US primary care physician workforce needs: 2010-2025. *Annals of Family Medicine, 10* (6), 503-509. doi: 10.1370/afm.1431 http://www.annfammed.org/content/10/6/503.full

Pope, C., Ziebland, S., & Mays, N. (2000). Analysing qualitative data. *BMJ : British Medical Journal*, *320*(7227), 114–116. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117368/

Qin, H., & Prybutok, V. R. (2013). A quantitative model for patient behavioral decisions in the urgent care industry. *Socio-Economic Planning Sciences*, *47*(1), 50-64.

Ramsaran-Fowdar R.R. (2008). The relative importance of service dimensions in a healthcare setting. International Journal of Health Care Quality Assurance, 21(1):104e24.

Ryan, C., and Sisko, J. (2012, May 16). Social media vital signs: How urgent care centers can connect, interact and build relationships with patients. *The Journal of Urgent Care Medicine.* Retrieved from http://www.jucm.com/social-media-vital-signs-how-urgent-care-centers-can-connect-interact-and-build-relationships-with-patients/

Sarasohn-Kahn, J. (2008) The Wisdom of Patients: Health Care Meets Online Social Media Retrieved from

http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20H/PDF%20HealthCareSocialMedia.pdf

Stern D. Status of urgent care in the US e 2005. Business Briefing: Emergency Medicine Review:15e8. Retrieved Jan 14, 2015, from, http://www.touchbriefings.com/cdps/cditem.cfm?NID¼1334; 2005.

Semantic knowledge(n.d.) http://www.semanticknowledge.com/company.htm

Urgent Care Association.(n.d.) *Industry FAQs* Retrieved from http://www.ucaoa.org/general/custom.asp?page=IndustryFAQs

Urgent Care Association. (2011) *Urgent care industry information kit 2011*. Retrieved January 09, 2015, from http://www.ucaoa.org/docs/UrgentCareMediaKit.pdf; 2011.

Wang, M. C., Ryan, G., McGlynn, E. A., & Mehrotra, A. (2010). Why Do Patients Seek Care at Retail Clinics and What Alternatives Did They Consider. *American Journal of Medical Quality*, *25*(2), 128–134. http://doi.org/10.1177/1062860609353201 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303882/

Weinick R.M., Betancourt, R.M. No appointment needed: the resurgence of UCCs in the United States. California Healthcare Foundation, ISBN 1-933795-39-5; 2007. Retrieved Jan 14, 2015, from, http://www.chcf.org/topics/view.cfm?itemID¼133465; 2007.

Weinick, R.M., Burns, R.M., & Mehrotra, A.,(2010). Many emergency department visits could be managed at urgent care centers and retail clinics. *Health Affairs, 29* (9), 1630-1636. doi:10.1377/hlthaff.2009.0748 http://content.healthaffairs.org/content/29/9/1630.full.html

Yee, T. Lechner, A.E, Boukus, E.R., (2013). The Surge in Urgent Care Centers: Emergency Department Alternative or Costly Convenience? *Center for Studying Health System Change* 26, http://ucaom.org/downloads/UrgentCareStudy.pdf