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TOWARDS THE ENHANCEMENT OF A CRITICAL CULTURAL PARADIGM IN
HEALTH COMMUNICATION: AN EXAMINATION OF THE IMPACT OF
PARADIGMATIC STRUCTURES

by

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Bachelor of Science, St. Cloud State University, 2002

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Arts

Grand Forks, North Dakota

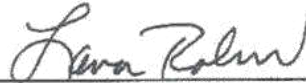
May
2016

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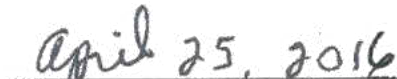


Dr. Richard Fiordo

This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.



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Laura Elizabeth Arneson
April 30, 2016

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ABSTRACT

In the field of Communication there are a wide variety of ways in which scholars can utilize theories to serve as epistemological frameworks in order to examine sociological structures. In this thesis, the subfield of Health Communication will be examined through a positivistic and critical cultural studies paradigm. This work will then examine underlying assumptions related to theoretical approaches in health communication.

With the primary argument of this work being that the dominant approaches in Healthcare Communication have been primarily rooted in positivism, this research study will attempt to show how this assumption continues to extend even into new digital communication platforms through an in-depth Twitter analysis of hashtags surrounding the Mayo Clinic.

Through participant observations, a literature review regarding the field of Health Communication, and research study of Mayo Clinic's Twitter platform, this thesis will attempt to shed light on the need to create a more critical cultural theoretical approach in the field for health communication. The study concludes by positing that as communication scholars begin to advance the field of Health Communication through incorporating critical cultural perspectives, the field will be opened up to a broader epistemology that may ultimately enhance the future of Health Communication in patient physician relationships and care.

CHAPTER I

INTRODUCTION

Examination of Paradigmatic Structures Related to the Field of Health Communication

In the field of Communication, there are a wide variety of ways in which scholars can utilize theories to serve as epistemological frameworks in order to examine sociological structures. In this thesis, the subfield of Health Communication will be examined through a positivistic and critical cultural studies paradigm. This work will then examine underlying assumptions that have been the dominant approaches in health communication and what those assumptions have or have not been doing.

When looking at the field of Health Communication from alternative perspectives, this research may highlight the limited diversity of approaches that have taken place within the field. The following research questions will be utilized within this study:

- RQ1: To what extent does (or does not) a positivistic approach to understanding health communication limit the effectiveness of patient-provider communication?
- RQ2: To what extent does (or does not) the increased digitization of communication in health care perpetuate and extend a positivistic approach?

- RQ3: What value might (or might not) an alternative critical cultural theoretical paradigm hold towards enhancing the understanding of health communication?

Through these research questions, and an examination of the field of Health Communication in a positivistic and critical cultural theoretical framework, this analysis may shed light on how the subfield of Health Communication and patient physician relationships could benefit from a critical cultural approach.

Overview of the Subfield of Health Communication

The field of Health Communication can be analyzed from a variety of perspectives; and, research has been conducted both by medical scholars and communication scholars. As defined by the U.S. Department of Health and Human Services, clear communication in the healthcare industry is the essential foundation that enables patients to understand and act on health information (US Department of Health and Human Services, 1992). This positivistic statement supports the notion that healthcare communication is based on a groundwork for delivering messages that should be adopted and adhered to by patients.

In 1989, the Office of Communications of the National Cancer Institute (NCI), formerly the Office of Cancer Communications, developed the original version of the textbook *Making Health Communication Programs Work*. The NCI has continued to be involved in health communication strategies and solicited ideas and concepts from health communication experts to modify their textbook to assist in the development of new health communication programs (US Department of Health and Human Services, 1992).

Health communication research considerations from this textbook involve the intended audience's culture, lifestyle, behaviors, motivations, and interests. The focus of these considerations appears to be rooted in a positivistic paradigm with the focus on individual identity and less on social groups or socially constructed ideas.

The areas of research within the subfield of Health Communication continue to grow for scholars as the healthcare industry continues to expand a digital communication presence and overall communication channels for patients, providers, and public information access. Within this thesis, the paradigmatic positions of positivism and critical cultural studies will be discussed in relation to the field of Health Communication.

The concept of paradigms was first presented by Thomas Kuhn in 1948. Kuhn was known as one of the most influential philosophers of science in the 20th century, as quoted by the Stanford Encyclopedia of Philosophy (Bird, 2013). Kuhn's 1962 book *The Structure of Scientific Revolutions* is extensively cited in the philosophy of science. Kuhn was known for concepts of paradigms. In Kuhn's thesis *The Structure of Scientific Revolutions*, he cites "Aristotle's analysis of motion, Ptolemy's computations of planetary position, Lavoisier's application of the balance . . . [and] . . . Maxwell's mathematization of the electromagnetic field" as paradigms (Kuhn, 1970, p. 23). Kuhn also referred to a variety of great texts as paradigms.

In the postscript of Kuhn's second edition of *The Structure of Scientific Revolutions*, Kuhn says that paradigms are "the most novel and least understood aspect" of his book (Kuhn, 1970, p. 187). Paradigms were sometimes referred to by Kuhn as key

theories or laws. Paradigms can categorize theories together, and provide a framework for research based on a set of assumptions or viewpoints.

The positivism paradigm has been the predominant position in Health Communication and was based on the foundation of how a study of society can be defined by scientific observation (Bourdeau, 2014). This approach implies that reality is externally driven and does not examine the role of power. Critical cultural studies bases reality on the ideology that reality is socially constructed and examines the role that power plays in society. The way power relationships are examined in healthcare plays a significant role in current limitations within the field, and highlights epistemological and ideological differences within critical cultural studies and positivism. Paradigmatic positions of positivism and critical cultural studies will be further examined in-depth in Chapter II.

Many of the initial research approaches within Health Communication began in a positivistic paradigm significantly focused on individual identity. While this is still a very dominant approach within health communication programs and patient physician communication, there are researchers in the field that have begun to provide alternative perspectives, attempting to broaden the research approaches within the field.

Thomas R. Lindlof, a professor in the School of Journalism and Telecommunications at the University of Kentucky, and Bryan C. Taylor, a professor in the Department of Communications at the University of Colorado – Boulder, authored a book on *Qualitative Communication Research Methods* that was designed as a guide to provide tools for the qualitative research process. Lindlof's research focused on cultural

analysis of mediated communication, media audience theory and research, social uses of communication technology, and interpretive research methods (Lindlof & Taylor, 2011).

Taylor specialized in qualitative research methods and critical-cultural studies.

When looking at the definition of health communication, Lindlof and Taylor (2011) discussed it as being a study and use of communication strategies to inform and influence individual community decisions to enhance health. This definition supports the argument that, at least at the time of Lindlof and Taylor's report, there was still a strong positivistic approach within the field.

Lindlof and Taylor (2011) further described the definition of health communication as helping tailor messages, materials, and activities to intended audiences, including evaluation mechanisms, and as defining appropriate, meaningful, achievable, and time-specific program objectives, all of which maintain a positivistic approach.

Over the last two decades, Health Communication has continued to grow as a field, and more recently, with the shift towards discussing a need for alternative perspectives from critical cultural scholars. In 1975, communication scholar James Carey said the following regarding qualitative research studies:

To seize upon the interpretations people place on existence and to systematize them so they are more readily available to us. This is a process of making large claims from small matters: studying particular rituals, poems, plays, conversations, songs, dances, theories, and myths and gingerly reaching out to the full relations within a culture or a total way of life. (p. 190)

Lindlof and Taylor (2011) claimed that when Carey shared this perspective his vision opposed the positivistic assumptions that dominated communication research at that time. This perspective continued to expand into the 1980s and 1990s where scholars began to explore new areas within the field of Health Communication. Areas of research expanded into symbolic interactionism, critical theory for various views regarding power and social structure, and also a look at cultural studies for analysis of theory studying everyday life (Lindlof & Taylor, 2011). Lindlof and Taylor also discussed the important role that critical paradigm plays in communication, including the aspect of power relations.

Rakow (2011) discussed the importance of scholars being well versed in critical and cultural theories so they can best assess their results when utilizing interviews and focus groups. A critical approach to research and analyzation of results includes integral components of research methods when looking at advancing Health Communication research in both methodology and interpretation.

Even after decades of research within this subfield, the first scholar to present a critical perspective of research to the field of Health Communication did not take place until 1994 when Deborah Lupton published what was known as one of the first critical essays regarding development of critical Health Communication and the interplay of power and control (Dutta, 2010). Still today, the field appears to be significantly dominated by the positivistic paradigm, with a rise in scholars presenting the argument that the field needs to shift towards a more critical cultural approach.

The Patient's Voice and Placement of Power

If someone were sitting at a bus stop, on a plane, or in a waiting room, one commonality they would have with their neighbor would be stories regarding healthcare experiences. People have been impacted through their own personal experiences, family members, situations with friends, or even listening to stories in the media. Within this thesis, I will share a few personal stories that will highlight my experiences as a patient and help signify the relevance of personal healthcare experiences towards this research study.

Being in various roles, as a patient and as a caregiver, has allowed me to experience the significant impact communication practices have within various types of healthcare experiences. Additionally, as a communication researcher, each personal experience I have increases my curiosity to learn more about the field of Health Communication and how communication scholars can assist in evolving the field of Health Communication to create a change in communication practices within healthcare organizations and facilities.

Throughout this thesis, I will share personal observations that highlight communication experiences related to topics such as patient-physician communication, digitalization in health communication, and power relationships. These personal observations will attempt to provide additional knowledge that I have gained from personal experiences that may support or argue against some of the current communication practices in healthcare today, as well as advancements that may or may not be needed within the subfield of Health Communication.

Effectiveness of Patient-Provider Communication

With increased access to health information, Kreps (2001) made the argument that when patients are able to be more engaged in the decision making process, they cooperate better with healthcare providers. Kreps' statement is very optimistic, as there are many obstacles to work through in patient-physician communication, beyond the sole idea that increased access to information will result in stronger cooperation. Since positivism is a prominent position within healthcare organizations, it can also be found as the prominent theoretical approach within the field of Health Communication.

This argument will be further explored within the literature review in Chapter II, but this framework, this idea that the more a patient knows, the better they will cooperate with their physician, assists in setting the stage for a participant observation I will share regarding my experience with patient-provider communication. This participant observation will utilize a personal example that I encountered that will provide first-hand knowledge of the importance of effective patient physician communication.

The opinions within this participant observation also support the research of Real and Street (2009) regarding communication limitations that take place when someone does not meet with their primary physician. They indicate that by doing this, it could limit the effectiveness within a patient-provider relationship. Based on my personal experiences, I would agree with Real and Street (2009), as well as suggest that many concerns related to patient-provider communication are based on the strong positivistic position of who controls the knowledge.

Participant observation: My story on patient-physician communication.

A few years back, I had an appointment at a family practice clinic due to severe foot pain. I was not seen by my primary physician, but the first available physician due to inability to get an appointment with my primary doctor. In the appointment, I explained the symptomology I was experiencing, and the physician determined that he would like to do an x-ray to ensure that no bones were broken.

When the x-ray came back, the communication process was very efficient as it was sent electronically within minutes to the computer in his office. Based on the physician's medical analysis, and the symptomology I was explaining, he predicted that the pain was caused due to a condition called planter fasciitis.

Being familiar with this condition, due to being involved in ballet for over twenty years, I was not convinced that this was a correct diagnosis. I expressed concern to the doctor that the pain level I was experiencing was at such a high level I questioned whether it could be something else. He indicated that the pain level was not uncommon and provided me with some shoe inserts that were recommended to relieve the pain. Once applying the inserts in my shoes, I started to experience more intensive pain. I contacted the physician's nurse and asked again if increased pain was a common reaction to adjusting to the shoe inserts. She indicated "yes," and that the condition could be quite painful and suggested I take pain medication.

The next day, I was progressively getting worse and losing mobility to the point that I couldn't put any pressure on my foot, so I contacted the physician again in concern that something muscular may be going on. He indicated that it just needed time to rest.

Clearly, I was not feeling heard at this point, as well as getting significantly worse each day, so I began to conduct my own research by using medical resources on the internet. I was able to locate digital resources that could assist in diagnosing conditions based on symptomology. I was also able to target the pain area and view images showing the muscles and tendons that were related to the painful areas of my foot. Based on my basic understanding of anatomy/kinesiology, medical research, and personal knowledge of my body, I was convinced that the physician's diagnosis was incorrect.

After no progress was made with this initial physician, I scheduled an appointment with a podiatrist who specializes in foot injuries to receive a second opinion. At the appointment with the podiatrist, he immediately assessed the situation and was concerned that I could have a tear in the tendon of my foot, which called for an MRI. Following the MRI, the podiatrist had my results on the computer screen. He then provided me with the results by showing me the MRI and describing the image of my foot.

Going back to the subfield of Health Communication, Real and Street (2009) proposed that patients who see the first available provider typically have limited communication, which results in a purely functional relationship. In addition, Potter and McKinlay (2005) stated that when patients decide to use walk-in clinics instead of contacting their primary care physician, they are often unable to develop relationships with their physicians, but merely have encounters where doctors stop caring for patients and just treat symptoms.

With the first physician involved in my foot diagnosis, my experience would support both Real and Street (2009) and Potter and McKinlay's (2005) arguments that, due to limited communication and limited ability to develop a relationship, I was purely being treated for symptomology, and my voice was not being heard as a patient. In the second visit, one could argue that the podiatrist was also not an established patient-physician relationship, but the outcome was clearly different. It draws attention to the thought that primary care physicians may have different communication practices than specialists. With specialists, a condition may be more defined and less generalized, which may or may not alter communication outcomes.

In my experience, the type of visit did create a significantly different outcome with each doctor, as in the first visit, my voice was clearly not being heard, nor was my own knowledge of my body. What was also alarming was that I could have experienced a significant injury if I would have followed the diagnosis of my initial care physician and not questioned the diagnosis to receive a second opinion. The shared relationship with the second provider created more balance in the power relationship in that my knowledge of my body was acknowledged. What would have been interesting to see, is what would have happened if the MRI came back with no "objective" evidence of a problem. Would my knowledge of my body still be acknowledged or would it have been dismissed?

A patient's knowledge of their own body is generally not recognized by a physician. While a patient usually will not have the medical background or expertise that their physician would, they do have accurate knowledge of their body, and that knowledge is a very powerful tool that may benefit health outcomes if it is allowed to be

heard. These ideas lead to a concern of power relationships and how they impact a patient-provider relationship. With the field positioned predominately in positivism, knowledge is not defined as shared ideas, but as an external truth, and until critical cultural perspectives are integrated, there will continue to be significant concerns in healthcare. Below is a case study that showcases how power relations can impact patient care and the struggle patients may experience in having their concerns heard and their knowledge accepted.

Participant observation: Power relations in healthcare.

In another personal case study, the impact of power relations between a physician and patient was put to the test. Prior to contacting my physician, I conducted my own research to see what issues could possibly be causing my symptomology, and therefore hoped to validate my concerns by calling for a doctor's appointment. After a few weeks, I decided to schedule an appointment with my physician, but was faced with the inability to see my primary physician for over a month.

As referenced earlier in the chapter regarding the research conducted by Real and Street (2009), I was concerned the communication would not be as effective if I did not see my primary physician, so I waited to schedule the appointment for a month later. As my health issues continued to intensify over that month, the amount of research I did also continued to increase. I was able to find an over the counter test that I could conduct at home to check various PH levels. When testing the levels at home, I received a highly positive result, indicating there could be concern for a high probability of kidney infection. Based on my online research, I determined that I needed to visit urgent care. If

my test results were indeed accurate, then I would most likely need to begin antibiotics immediately, or in the worst case scenario be hospitalized.

Starting with my first encounter in the ER (emergency room), I already had a barrier created by the admission nurse. While I was able to clearly articulate my reason for coming to urgent care and my possible condition, my knowledge was not accepted, but met with significant resistance and even disbelief. I felt embarrassed that I had even completed my own research and was shocked to be met with such an unfavorable response by the nurse.

This pattern continued for me when the Physician's Assistant (PA) came to the room. Again, the PA asked about my symptomology, and I indicated what condition I tested for and the positive results. My diagnosis again was questioned, not based on the symptomology I described, but by disbelief that I had the knowledge to utilize an over-the-counter test. The PA was more concerned with where I would have found such a test, instead of how ill I was feeling. I understood the physician needed to assess the situation as a medical professional, but acknowledgement of my research/tests was disregarded and very adversely received. At that point, I felt scolded for taking the initiative to understand my symptoms and my own body. In addition, the PA indicated with his tone of voice that I "didn't look sick enough" to require medical assistance.

When the test came back from the PA, it was positive, and the condition was exactly as I had indicated 5 hours earlier when I had entered urgent care. While I am not trying to disregard any of the testing, or the knowledge and education medical professionals possess, I will argue that there is definitely an issue in power relations with

patients and medical staff. Clearly who has the power and who disseminates knowledge was not a shared conversation in this situation. A more critical cultural approach that would accept the knowledge of the patient, could greatly impact patient-physician communication and may assist in creating more positive outcomes in healthcare.

Influence of Digitalization in Health Communication

Due to the complexity of new media, digitalization in health communication practices continues to provide growth in research in the field of Health Communication in both human and mediated communication. The “information society” has been defined as an “increasing convergence of telecommunications and computing in everyday life, production, consumption, and politics” (Nayar, 2010, p. 6). “Information society” has also been defined as “the age of massive expansion of information and communications technologies (ICTs) over the last decades of the twentieth century -- and the increasing reliance on electronic exchange/linkage of data, money, and markets” (Nayar, 2010, p. 185).

Within the field of Health Communication, it is essential to present a variety of theoretical perspectives. As there continues to be a rise and rapid expanse of use of digital communication, it is only natural that this rapid dissemination of information would transfer into the field of health care. When taking a look at healthcare and communication around the world, the concept of a “digital divide,” referring to unequal access, can cause great concern for Health Communication if resources are not available to all social groups and limited in various geographic areas. Positivism would view this knowledge being something that could just be transferred, whereas critical cultural studies would

look for how the knowledge was constructed and who was holding this knowledge. With digital communication continuing to grow, how it is constructed, and how it is utilized could greatly benefit by a more critical cultural perspective. This area will be further explored in the literature review sections on new media in Health Communication in Chapter II.

Value of Alternative Paradigms in Health Communication

C. Tracy Orleans (2008) noticed a movement acknowledging the need for more critical perspectives in health communication, and how this movement has grown over the past few decades. Orleans indicated that there has started to be a shift in theories and models within the field of Health Communication, and that the field is moving away from a major focus on an individual's behavior and moving towards a model of social change.

Orleans said that by the late 1980s, Health Communication models were beginning to have limited reach and staying power based on the fact that they were focused on individual health interventions versus a more socially focused model (Orleans, 2008). Orleans also supports the idea that theory plays a vital role in creating more powerful connections and building on new advancements within the field of Health Communication. In order to build on new advancements that Orleans is referencing, it may be valuable to explore alternative paradigms.

By incorporating alternative perspectives into Health Communication research, we may assist scholars in providing a catalyst for change within healthcare organizations. Below, a participant observation is highlighted that sheds light on the impact of

organizational communication and how a culture of patient centered communication can dramatically impact care.

Participant observation: Impact of corporate culture in healthcare.

Recently, I conducted a brief comparison of two mid-west hospitals, and it was very clear to me as to the type of corporate culture and communication strategies that were practiced and trained by the hospital employees including nurses, physicians, and staff.

Health Facility A was known world-wide for their medical treatment and state-of-the-art technologies and medical advancements. I observed its national reputation firsthand in their exceptional patient care, and the knowledge of their medical teams. In addition to having one of the strongest reputations in medical expertise, they had also reached a superior level of organizational communication, which showed cohesiveness with all of their staff in reference to their patient interactions/relationships and patient care practices.

Every area of care that I observed was designed with patient focused communication and support, and outreach was provided to both the patient and the family. This type of care enabled the patient and family to feel confident in the medical care they were receiving. The patient was communicated to in a consistent and caring approach by every employee they encountered.

This experience reminds me of the business training model called “The Disney Philosophy,” which is focused on: (a) creating a magical experience for every guest, and (b) bringing a passion into what you do each day at every level. In the Disney Philosophy

training, Disney discusses the importance of everyone from the CEO and CFO, to the costume characters, maintenance staff, and towel folders -- how each person needs to feel pride in what they do and how this creates a magical experience for their guests.

Just imagine what type of changes we would see in the healthcare industry if all patient communication efforts were focused on the patient experience and creating a culture of exceptional care, beyond just the medical experience. I believe we would see a tremendous shift in creating more shared experiences and ultimately result in better health outcomes and a more balanced approach.

In *Health Facility B*, the experience was entirely different. Being a smaller, regional facility there were some obvious limitations, but the overall culture and care was not even remotely close to *Health Facility A*. Regardless of geographic location, facility size, or financial limitations, communication and culture can and should be an essential element that is focused on at all medical facilities. This cultural emphasis does not take significant monetary resources, but it takes time and awareness by an organization's leadership to invest in creating a patient centered organizational culture, which starts at the beginning within an organization's communication practices and organization philosophy.

Creating an empowering patient-centered culture may not only enhance a patient's experience, but it could have an impact on the positive outcomes of health conditions. I reference these aspects of culture and facilities as the organizational communication aspects may be an important area for health communication scholars to expand future research studies in.

Conclusion

All aspects of Health Communication impact the overall creation of knowledge and determine who the holder of that knowledge is. These aspects of communication should be considered when looking at healthcare organizations and possible future research areas for communication scholars in the subfield of Health Communication.

This thesis will further argue that in order to better evolve the field, there exists a need for enhanced critical cultural approaches to studying Health Communication. With the subfield of Health Communication evolving, there may be implications in providing only a positivistic/empirical approach to Health Communication.

The following chapters will continue to position this argument through a variety of literature examples and a case study involving the Mayo Clinic. Chapter II will provide a brief history on the paradigms of positivism and critical cultural studies. Through a literature review of areas of patient-physician communication, new media in Health Communication, and power relationships will be explored looking through the lens of both a positivistic and critical cultural perspective.

Chapter III will take a deeper look into the area of new media in Health Communication by analyzing the use of Twitter at the Mayo Clinic. Assumptions related to how positivism may or may not continue to be dominant within digital channels of health care organizations will also be addressed, as well as what implications there may be to communication in health care without providing alternative critical cultural perspectives.

Through personal observations, case studies, a literature review, and social media analysis, the goal of this research will be to provide a baseline of knowledge and resources that will draw more attention to the impact paradigmatic structures have in relation to the field of Health Communication. Each of the primary research questions will be explored throughout this thesis to assist in shedding light on this important topic and movement towards creating a more critical cultural approach to research in the field for Health Communication scholars.

CHAPTER II

COMPREHENSIVE LITERATURE REVIEW

A Snapshot of the Field of Health Communication

This chapter attempts to provide a snapshot of the research conducted in Health Communication, guided by an ultimately critical examination of the role that paradigms play in understanding and applying communication theory.

Paradigms provide a unique structure to compare and contrast the positions of power and reality. This structure allows for scholars studying the field of Communication to understand, improve, and change the role that communication plays in constructing our daily lives.

Two paradigmatic positions that will be further examined in this chapter include positivism and critical cultural studies. The relationship between these approaches represent the narrow scope of research that has previously been conducted in the subfield of Health Communication. With positivism being the predominant position in Health Communication, a critical cultural perspective has been much less utilized. Without utilizing a critical cultural perspective, the acknowledgement of a patient's understanding of their body will be left unheard. This aspect of health communication drives how power relationships are addressed within healthcare. Through this chapter, I will attempt to unveil the lack of critical cultural studies perspectives in Health Communication, and

highlight some of the research that has been conducted in the field, which still is predominately located in a positivistic perspective.

Both of these positions will be further defined and examined as to the perspectives that each approach brings to the field. The research that has been selected will be explored based on subcategories of interpersonal communication, power relationships, and new media in Health Communication. Looking at the field with various paradigmatic approaches may provide additional knowledge that will assist in gaining a better understanding of how alternative perspectives can provide additional value to the field and support changes that are needed in communication in healthcare.

As we begin to examine the paradigmatic approaches of positivism and critical cultural studies, we will first look at the definition of each paradigm, followed by the breakdown of literature that is related to the paradigmatic approach of positivism, and then literature that will begin to show some shifts towards the support of a critical cultural theoretical approach for the future.

Paradigmatic Approach of Positivism

Positivism is an approach that has been heavily utilized in medical research and can be described as a method to accurately define, describe, and predict a situation. Founded in the 19th century by Auguste Comte, positivism evolved from Comte's work, which was based on a foundation of how the study of society can be defined by scientific observation (Bourdeau, 2014). Comte was known as one of the first philosophers of science with his focus on a social dimension of science (Bourdeau, 2014). The paradigmatic approach of positivism today is known to be based on one of Comte's most

important works, the *Course on Positive Philosophy* (Bourdeau, 2014). The *Course on Positive Philosophy* first explored five fundamental sciences that were currently in existence (mathematics, astronomy, physics, chemistry, biology), and then proceeded into the new science that Comte was forming (Bourdeau, 2014). In the *Course on Positive Philosophy*, Comte attempted to explain “positive philosophy,” and referred to the positive state as, “the mind stops looking for causes of phenomena, and limits itself strictly to laws governing them” (Bourdeau, 2014, Section 4.1, para. 2).

Comte’s approach assumes there is a truth to be discovered, and implies that reality is externally driven. Positivism generally is focused on keeping the status quo and maintaining the order. It looks at the impact communication has on the behavior of people, much like what is currently being researched in the field of Health Communication today. Quantitative methods utilized, such as surveys, have dominated this sub-field with a focus more on statistical and numerical analysis remaining in a very positivistic approach. Quantitative methods have been utilized to assist healthcare workers in predicting and controlling patient attitudes and behaviors, and in designing and assessing interventions to achieve desired outcomes (Lindlof & Taylor, 2011; Freimuth, Massett, & Meltzer, 2006).

This creates a problem with the positivistic perspective above, as the knower becomes the objective outsider who is viewed to be able to measure reality accurately. Critical cultural scholars would oppose this viewpoint, and argue that reality is perceived/constructed internally with socially constructed knowledge, not imposed externally and accepted as truth.

When examining the definition of health behavior or education, Glanz et. al (2008b) defined it as being aimed towards seeking positive informed changes in health behavior through educational programs. This positivistic approach described is still the mainstream practice in health education programs. Today, health education messages can be delivered in various settings including schools, communities, worksites, healthcare settings, homes, and consumer marketplaces. At the time of this study, in addition to traditional formats, health education messaging was dramatically increasing its presence through new communication channels such as blogs, internet, radio shows, mass media channels, and social media channels such as Twitter and Facebook (Glanz et al., 2008b).

Even within new communication channels such as social media and digitalized communication, at the time of this study, health communication was still prominently based in the positivism paradigm. Through further research, scholars can strive towards shifting the field to provide a more critical cultural perspective. By providing alternative perspectives and acknowledging the knowledge of the patient, this research may lead to a change in how health communication is handled and improve overall healthcare outcomes.

Within the positivistic paradigm, there are many implications to consider in solely utilizing this method in the sub-field of Health Communication. While positivism looks at the effect of communication, it fails to analyze the role of power, and may not look at social structure or power relationships as it is based more on individual identity.

Research approaches are generally quantitative in nature, and in the field of communication this approach may be typically connected to advertising, public relations,

administration, and Health Communication. Freimuth et al. (2006) examined articles from the first decade of *The Journal of Health Communication*. In this study, they reviewed 321 published articles, coding various characteristics of the researchers. When analyzing the articles, Freimuth et al. determined that a primary author publishing at that time was categorized as a U.S. academic. They also recognized a trend that the types of studies conducted were most likely empirical research studies, utilizing more of a quantitative approach through survey methods, much like the positivistic approach addressed previously.

Through their analysis, they proposed that the research conducted was most likely not theory based and that it was heavily rooted in examining mass media communication. By conducting this study, they were able to reference the importance of utilizing qualitative methods, as opposed to solely quantitative methods, so diversity in approaches could begin to provide an avenue that could assist in restoring a patient's integrity (Freimuth et. al, 2006).

Research by Freimuth et. al (2006) supports the argument that the field of Health Communication is still and has been predominately positioned in positivism. These assumptions and implications will be further examined based on three subcategories. The subcategories of interpersonal communication, power relationships, and new media in health communication will be explored based on research conducted within the positivism paradigm.

Interpersonal Communications/Patient-Physician

Interpersonal communication is a significantly researched area in the field of Health Communication. Relationships between a patient and a provider continue to be analyzed through a variety of new media resources that are developing and therefore changing the traditional methods of communication between patients and physicians. All of the studies below are rooted primarily in a positivistic approach. Their conclusions rely specifically on scientific evidence, such as experiments and statistics, to reveal the relationship between a patient and a physician. This relationship is based on an epistemology of an “objective” expert having the authority (L. Rakow, personal communication, April 10, 2016), and therefore, creating a power relationship with a patient impacting their communication.

Barbara Korsch was known as a pioneer in developing research regarding patient-provider communication and the evaluation of patient outcomes (Korsch, Gozzi, & Francis, 1968). In the article “Gaps in Doctor-Patient Communication,” Korsch et al. addressed communication barriers between a physician and a patient’s mother, which resulted in significant patient dissatisfaction of care.

Additional studies that have been conducted have evaluated areas of physiological outcomes (Greenfield, Kaplan, & Ware, 1985; Kaplan, Greenfield, & Ware, 1989), as well as how patient-provider communication improves patient adherence to medical treatments (Garrity, 1981; Golin, DiMatteo, & Gelberg, 1996). Within Health Communication, a variety of research areas have been assessed with a focus on

evaluating patient outcomes to include patient satisfaction as well as adherence to treatment (Brown, Stewart, & Ryan, 2003).

Below is a case study that provides another example of the predominately positivistic approach to communication within the field of Health Communication through an overview of the field by Brashers and Goldsmith (2009).

Case study: Evolution of Health Communication research.

In the book *Communicating to Manage Health and Illness*, Brashers and Goldsmith (2009) compiled work from numerous scholars to represent their primary goal to advance the theoretical bases of Health Communication based on communication identity, relationships, and patient-physician interactions.

In Chapter 2 “Unexamined Discourse: The Outcomes Movement as a Shift from Internal Medical Assessment to Health Communication,” of Brashers and Goldsmith’s (2009) book, Pescosolido, Croghan, and Howell (2009) provided an overview of the evolution of Health Communication research, which has been primarily focused on an outcomes based research movement. The chapter lays the groundwork for how Health Communication research began to look at the influence of patient-physician communication regarding healthcare outcomes. Interesting perspectives were shared on how healthcare reforms have shifted outcome data from internal expert discourse to the development of health communication.

When Pescosolido et al. (2009) initially described outcomes data, they referred to it as a tool to analyze the effect of health communication on defined populations, the utilization of health communication to change health policy, general medical practice,

and overall health behaviors. Pescosolido et al. referred to these types of practices as “data-based decision making,” and by collecting this information, they would be able to distribute it to providers, organizations, insurance companies, and lastly, the public.

This study sheds light on the fact that health communication messaging, policies, and strategies do not always have the public as the primary focal point. With administrators’ end game focused on providing data to providers, organizations, and insurance companies to create adherence and compliance, it yet again shows how positivistic their approaches are. The focus of this research does not engage the public to learn about their needs, or opinions, but purely gathers data to provide more statistical analysis for companies to create compliance.

The term Pescosolido et al. (2009) defined as the “pre-outcomes era” referred to physicians communicating among themselves, and dated back to the 1600s. Even at that time, the research conducted focused purely on data collection for birth and death rates. In the 1800s, research began to expand evolving with doctors communicating best practices regarding health conditions and diagnosis, but the primary research still emphasized data collection on birth and death rates (Pescosolido et al., 2009).

This primary research emphasis continued into the 19th century, while beginning to incorporate more statistical data (Pescosolido et al., 2009). All of these research studies relate to Comte’s philosophy in wanting to establish theories that could be tested with the primary outcome of improving society. Experts controlled the outcomes by controlling the behavior of the people, which today still has not significantly changed when you research health education awareness programs.

Impacts of organizational structures in patient/physician communication.

In the area of patient and physician communication, organizational structure and policies and procedures of a healthcare facility can significantly impact overall patient satisfaction and care. Patient-physician communication can impact a variety of variables including patient adherence to treatment plans, decisions to pursue malpractice litigation, pre- and post-visit trust, patient satisfaction, and physician satisfaction (Real & Street, 2009). Organizational structure/operations can impact all of the above variables, on how a healthcare facility's internal policies and procedures can affect patient-physician communication in medical consultations and overall care. The policies of an organization also impact physician-patient communication in how the organization develops an overall communication plan; and caregivers investment in their patients can all be controlled. Primary care facilities will have different types of relationship building versus trauma units, hospitals, oncology practices, or specialty care practices.

Several factors, pointed out by Real and Street (2009), may affect doctor-patient communication including policies for access to doctors, scheduling, how many patients physicians see daily, how long MDs have to interact with patients, physician income, support staff of physicians, referral policies, organizational structure, and technology. When a patient feels as if a physician is rushed, the patient may feel less comfortable sharing their story and details of their symptomology. This type of rushed interaction may also lead to a patient feeling less informed and less likely to ask questions, therefore leaving their visit uncertain of their treatment plans or even their diagnosis. This all maintains a positivistic standard of evaluation, which can be argued to improve patient

care through positivism. A critical cultural perspective would allow for an alternative approach, beyond the controlled clinic practices. While these steps may create a better visit, the patient is still not placed in an equal position of power within this interaction.

Physicians today have more regulations to adhere to in their medical practices as well as pressure from employers, government regulations, and media which may lead to negative implications within the patient-physician communication process. Lammers and Duggan (2002) found that doctors in managed care contracts generally experienced reduced satisfaction in their jobs. Various organizational structures may create demands on physicians to see a certain amount of patients each day. When shorter exams are taking place, communication exchanges between patients and physicians are limited and may impact communication behaviors of physicians (Bensing, Roter, & Hulsman, 2003). When visits are longer, the patient may have more time to discuss concerns with their physician and a more positive communication flow may result.

In a study, Zachariae et al. (2003) found that physicians were generally satisfied with time available and their ability to establish contact and handle medical aspects of their consultations with patients. This shows that connecting all levels of satisfaction from the patient, physician, and health care organization all impact the overall patient experience.

An organizational influence that has also begun to impact patient-physician communication is third party payers (Waitzkin, 2001). This may include the monitoring of physician behaviors, testing doctors' orders, impact of referrals, as well as pressure to utilize certain pharmaceutical drugs. These types of conditions can be impacted less or

more based on the variables of: whether or not a physician is working in small practice, solo practice, large practice, or facing a variety of competitive healthcare options in the market.

It has been argued that the rise of third party payers has made a major impact on patient-physician communication. The argument is that third party payers may often employ non-clinicians that monitor and challenge physician clinical decisions, determine patient load, and monitor a physician's time spent with a patient (Waitzkin, 2001).

In a physician interview by Real and Street (2009), a physician shared their experiences with working under managed care, and the difficulties they faced when trying to treat patients. The challenges this physician described regarding trying to treat a patient indicated that they would have a non-clinical employee call a non-clinically trained insurance employee who would determine whether this procedure would be approved for the patient.

The physician's frustration indicated that if the employee did not use correct medical terminology, then a procedure could be denied as it did not match up correctly on the insurance provider's approved list of services. Then the physician indicated he would have to call and explain over a dozen times a day to the insurance providers the medical condition in order to get the proper approval to treat his patient.

Sulmasy, Bloche, Mitchell, and Hadley (2000) indicated other areas of concern, regarding some known physicians receiving financial incentives to limit tests, restrict treatment options, and reduce their range of referrals for their patients. When hearing a statement like this, it is unclear whether this could be viewed as a form of malpractice as

it appears as if it is a denial of medical care and not serving the best interests of their patients. This philosophy would question if a healthcare organization was patient-centered, or profit-centered. This also should set off an alarm for people that they need to be part of the conversation and an advocate for their own health. With so many people not being an active participant in their care and taking a physician's diagnosis as the only truth, this creates significant concern with the influential variables discussed above.

Uncertainty reduction theory applied to Health Communication.

In continuing to review positivistic research related to health communication, we now look at Uncertainty Reduction Theory, adopted by Charles Berger. Uncertainty Reduction Theory looks at how communication is used to gain knowledge and create understanding. The positivistic focus of this theory is significantly aligned with how health communication research has been conducted within the positivism paradigm.

Berger's assumption has been that when strangers meet their primary concern is one of uncertainty reduction or increasing predictability about behavior of both themselves and others in the interaction. Uncertainty Reduction Theory can be viewed in a positivistic standpoint, and is very relevant in patient-physician communication. Without reducing uncertainty in a situation, it can create an uncomfortable and stressful environment for a patient, much like what was described in an earlier personal case study in this report.

Berger's series of axioms explore eight key variables including: verbal communication, nonverbal warmth, information seeking, self-disclosure, reciprocity, similarity, liking, and shared networks (Griffen, 2012). These axioms can be referred to

as self-evident truths, which would also correlate with Comte's ideas of a universal truth in the physical world.

Additional areas of research in interpersonal communication.

Within the Health Communication field, there are additional areas of research being conducted that impact interpersonal communication. These areas can include the impact of culture and healthcare communication, disclosure and self in chronic illness, understanding the role of the helper, and the role of codependency in healthcare and healthcare outcomes, all of which still maintain a primarily positivistic approach.

Power Relationships

In the 1960s, Robert H. Brook, a clinician at the Johns Hopkins University School of Medicine, examined the process of patient care and how patients felt about their outcomes (Pescosolido et al., 2009). Findings from this research found that 8 out of 10 times, physicians found their treatments to be more effective than their patients did (Brennan, 2002).

Pescosolido et al. (2009) claimed that by the 1990s, the outcomes movement was in action and the shift from internal assessment to health communication was complete. However, many scholars would argue this movement is far from finished. While great strides have been taken from internal assessment to outcomes measurement, there is still a significant absence of analysis of power relationships within patient-physician relationships.

In a research study by Pescosolido et al. (2009), they utilized focus groups to look at meanings of outcomes measured and discussed the process by which data was

collected. Within these focus groups, Pescosolido et al. wanted to focus on the actual process of filling out patient surveys and any other topics that may be of concern. They found two general themes that are not surprising to hear – lack of connection to participants’ social worlds, and issues to access and care. Pescosolido et al.’s conclusions presented them with the awareness that they should have additional approaches to how they approach patient care, which resulted in a more critical cultural perspective. One of the participants in the Pescosolido et al. (2009) study, who was an African American woman, expressed this statement:

The whole thing is not to be treated like I’m an idiot just because I’m Black. I know what’s going on with my health, my body. I don’t know what causes diabetes or heart disease or cholesterol going crazy. Talk to me, talk to me, I know what’s going on. Don’t treat me like I’m an idiot. (p. 55)

This statement strongly supports the argument that there is significant work that needs to be done regarding power relationships in healthcare. Pescosolido et al. (2009) indicated that through their research, outcomes that evolved indicated that medical care should be more patient-centered. Secondly, what happens within a patient-physician interaction is important and can improve healthcare outcomes. Just as the African American woman in the previous quote expressed, patients want a voice and want to be heard and acknowledged for their knowledge of their body. A mutual respect and understanding needs to be found to enhance patient-provider relationships. In order to truly gain advancement in this area, a critical cultural perspective needs to be adopted so that patient voices will not only be heard but doctors will embrace the belief that patients

have knowledge to contribute, which is a significant shift from the positivistic perspective in healthcare at the time of this study.

New Media in Health Communication

The 20th century provided new resources in technology and developed new techniques to acquire data directly from patients (Pescosolido et al., 2009). In the 1950s, patients were able to report their health status through the first self-assessment health surveys (Pescosolido et al., 2009). The main issues focused on during that time were access, adherence, and effectiveness, all which heavily land in a positivistic paradigm that has dominated research in this field.

Aspden, Katz, and Bemis (2001) reported that one third of doctors surveyed reported that their patients' use of the internet led to a more productive consultation, and 14% felt that it had a negative influence on their visit. This supports the case that information and information seeking is a large dimension in the evolution of patient-physician communication, as well as how it can be utilized to enhance communication methods or provide negative implications within patient communication.

Real and Street (2009) argued that the use of technology in Health Communication does not create a digital divide. This argument by Real and Street analyzed a critical cultural perspective that could be argued may present an issue of access, which could be related to economic conditions, demographics, geographic areas, underserved populations, all of which may have access issues; and therefore, technology may contribute to a digital divide.

Sands and Halamica (2004), presented a concept for patients to be able to digitally access their test results, view upcoming appointments, review medications, request appointments, email physicians, and view laboratory and radiology tests through secure web-sites. In 2016, this is now a current practice in healthcare organizations, and is continuing to expand with the digital resources available to enhance the patient care experience. While easy access to results are available, patient education and communication with a physician may involve less interaction, and this has the potential threat of creating less patient understanding and compliance.

Beverley Kane and Daniel Z. Sands (1998) developed a white paper with guidelines for the use of electronic clinic-patient communication for the AMIA Internet Working Group. Since this time, internet usage has and digital resources have significantly expanded. Kane and Sands' (1998) research presented a need for healthcare organizations to have specific guidelines concerning computer based communication between physicians and patients. Two areas of concern their research addressed were:

1. Effective interaction between a physician and a patient, and
2. Observance of medicolegal prudence.

The goal through their development of guidelines was to determine how electronic mail communication with patients can enhance communication versus create more complications with a patient-physician relationship.

Positive areas that incorporation of electronic mail communication can include are providing easier follow-up with patients which could enhance health outcomes.

Electronic mail communication could also provide a patient with an easy option to

communicate with a physician for clarification regarding a visit, condition details, criteria on treatment plans, as well as an opportunity to ask follow-up questions a patient may have forgotten to ask in a doctor visit.

In a medical records aspect, electronic mail communication instantly creates a written record that provides clarity in communication between a patient and provider. Through digital programs, patients could be provided with pre- or post-operation notes that are easy to refer to, as well as increased patient education regarding a condition or treatment plan. As a patient, it can be difficult to recall all the information you are being told by a physician due to a patient's anxiety or possible state of shock. In addition, if a patient is alone when provided with a diagnosis, they may be unable to hear or comprehend what was communicated by their physician.

In Kane and Sands (1998) white paper, they discussed the possibilities of embedding links and educational materials as well as other resources on a health care facilities website or external sites. An additional benefit they discussed included the aspect that emails are self-documenting, which can be beneficial in malpractice claims that often result from insufficient communication.

Kane and Sands (1998) also indicated that patients are demanding email access to health providers. Their argument has been met, as use of email as a communication device between doctors and patients is now a growing trend in medical offices. With the rapid expansion in digital communication from 100,000 users in the late 1970s, to 50 million in 1997, and 100 million in 2000 (Kane & Sands, 1998), digital resources have

continued to grow and expand; and many industries find it essential to have an online presence.

Lovejoy and Saxton (2012) discussed nonprofit organizations and engaging stakeholders through Twitter. In their study, they looked at 73 nonprofit organizations and how stakeholders were engaged through tweets and other communication methods. The research found that many of the nation's largest nonprofits were not using tweets to maximize stakeholder investment (Lovejoy & Saxton, 2012). The messaging that was being conducted generally appeared to be one-way messaging with less than 16% demonstrating a connection to a specific user. Hashtags were also not a common trend. Incorporation of social media in health communication may have a variety of impacts. This topic will be further discussed in Chapter III surrounding the Mayo Clinic Twitter analysis conducted.

Briones, Kuch, Liu, and Jin (2010) researched how the American Red Cross was utilizing social media to build relationships and keep up with the overgrowing digital age. Their research focused on interviewing employees of the American Red Cross and how they utilized social media to communicate with key publics. Through their interviews, Briones et al. identified social media communication was utilized primarily by volunteers, community, and the media. In their findings, Briones et al. acknowledged there was increased engagement with two-way communication, which was not evident in their previous study. Their ability to maximize two-way communication has allowed them to connect with younger constituents, the media, and the community. The primary

use for this format is to increase public relations and engagement in building relationships.

While healthcare organizations are starting to incorporate more emerging platforms in their communication practices, many still only utilize a positivistic approach in information sharing, public relations, and advertising; all continue to maintain more of a narrow communication perspective. Future studies on engagement and relationships may show a shift in some of the ways in which social media may be used in the future of Health Communication.

Paradigmatic Approach of Critical Cultural Studies and the Movement Towards Alternative Perspectives

In the study of communication, Critical Cultural Studies is an approach that explores ideologies related to social class, nationality, ethnicity, gender, and ability (Durham, 2011). Reality is examined based on the ideology that reality is socially constructed, and there is an emphasis on understanding the position of power and how it is carried out. While positivism continues to be the dominant form of research in Health Communication, this section will begin to present some alternative perspectives that may lead to some change to begin to adopt a more critical cultural perspective for the field of Health Communication.

With critical theory evolving from the Frankfurt School, critical theorists have claimed that social inquiry should be examined by combining philosophy and the social sciences and seek “human emancipation” (Bohman, 2005). The Frankfurt School is what can be known as the original source of critical theory (Corradetti, 2012). It was established through a social and political movement of thought in Frankfurt am Main,

Germany, in 1923 (Corradetti, 2012). The school was founded by Felix Weil, with an aim to develop Marxist studies in Germany. The Frankfurt School theorist shared a Marxist premise. The school later moved to Columbia University in New York in 1933 when it was forced to close by the Nazi's (Corradetti, 2012).

Max Horkheimer was known as a leader in the Frankfurt School and was the director of the Institute and professor of Social Philosophy at the University of Frankfurt (Berendzen, 2013). Horkheimer served in this role from 1930 – 1933 and again from 1949 – 1958. During the years between those time periods, Horkheimer led the Institute primarily in America (Bohman, 2005). Horkheimer defined critical theory as being able to explain what needs to be changed with current social reality, identify characters to change it, and provide clear norms for criticism and goals for social transformation (Bohman, 2005). Horkheimer can be quoted, “all conditions of social life that are controllable by human beings depend on real consensus” (Horkheimer, 1972, p. 249–250).

Theorists such as Stuart Hall, Stanley Deetz, John Dewey, and Jürgen Habermas have also provided significant contributions to the development of the Critical Theory paradigm. Habermas's philosophy aims to develop an analysis of general conditions manifested in various human capacities and powers (Bohman, 2005). Habermas placed the emphasis on “how speaking and acting subjects acquire and use knowledge” (Habermas, 1984, p. 11), versus the positivistic perspective, which measurement of truth constructed by an external reality. Critical Cultural theorists challenge who as the

authority and how knowledge is defined. They also acknowledge that there isn't just one truth.

Scholars such as Raymond Williams, Richard Hoggart, and Stuart Hall are also considered integral in the development of this Critical Theory paradigm within the Birmingham Centre for Contemporary Cultural studies in the 1960s (V. British Cultural Studies, 2000). The work of Antonio Gramsci should also be acknowledged, in particular his concept of hegemony (V. British Cultural Studies, 2000). As theoretical positions shifted from the earlier theories in the 1960s, concern with issues surrounding class, work, and power remained the same. Moving into the 1980s and 1990s, the field further expanded engaging more scholars with a variety of agendas to include gender, race, age, and sexuality (V. British Cultural Studies, 2000).

While the field of critical cultural studies has evolved over time, the field of Health Communication is beginning to see a slight shift in the inclusion of a critical cultural perspective. Dutta (2010) presented research that highlights the shift in Health Communication to involve a critical cultural perspective. Dutta routed the first critical essay back to 1994, written by Deborah Lupton (Dutta, 2010). Lupton pointed out dominant positions within the field of health communication and discussed problems with power and control in advancements of healthcare solutions (Dutta, 2010). Lupton's argument is precisely the same concern critical scholars have today with the limited perspective in the field.

Lindlof and Taylor (2011) referred to Health Communication as, "a subfield that represents a distinctive genre of applied research that was founded by post positivist

scholars of interpersonal and mass communications” (p. 19). Lindlof and Taylor referred to the field as traditionally being utilized to assist healthcare professionals in identifying and overcoming perceived communication problems that affect public health and the delivery of health related services (Lindlof & Taylor, 2011).

Lindlof and Taylor validated their concern by proposing that without looking at a variety of research methods, research studies will continue to present a “hierarchical authority of medical professionals over patients” (Lindlof & Taylor, 2011, p. 19). These initial findings support the argument that health communication needs to begin involving more critical cultural perspectives into practice and research.

Sandra Harding and Julia Wood are feminist scholars that have written numerous articles discussing Standpoint Theory. They discuss Standpoint Theory as a way in which social groups shape what we experience, as well as how we understand and communicate with others (Griffen, 2012) Standpoint can be defined as “a place from which to view the world around us” (Griffen, 2012, p. 447). If critical cultural perspective was applied to Health Communication, the field would look significantly different. A patient’s standpoint in regards to their health should be taken into account. If a physician would consider their patient’s standpoint in a medical conversation, we would see remarkable changes in the approach to communication in healthcare. Failing to analyze the role of power and socially constructed views has resulted in a significant concern among researchers about the lack of critical cultural perspectives in communication among caregivers, which limits the field of Health Communication.

The critical cultural studies paradigm will be further discussed through an analysis of the literature below that begins to show a slight shift towards alternative perspectives within Health Communication research. While not all of these scholars represent a critical cultural perspective, the research begins to identify that there is a slight paradigmatic shift and presents an argument for the need for more critical cultural perspectives to be utilized within Health Communication research.

Interpersonal Communications/Patient-Physician

The book, *Health Behavior and Health Education: Theory, Research, and Practice*, includes a collection of articles and authors exploring health behavior theories, research, and alternative theories in Health Communication research. This book, published in 2008, was edited by three scholars – Karen Glanz, Barbara K. Rimer, and K. Viswanath – who, at the time they edited their book, worked in the research areas of public health at various universities.

The articles selected for the book discuss a wide range of topics including health education and health behavior, models of individual health behavior, models of interpersonal health behavior, community and group models of health behavior change, and using theory in research and practice. While many of these topics may generally represent a more positivistic standpoint, C. Tracy Orleans (2008), fellow and scientist at Princeton, started off the book by sharing in the foreword how important the incorporation of theory is to the future of Health Communication, and the powerful results we will see in the field by incorporating alternative perspectives than positivistic communication to communication research in healthcare. Orleans challenged the ways in

which research was being conducted and supported the argument that a shift needed to take place in providing alternative perspectives to the field of Health Communication.

A majority of the contributors to the book *Health Behavior and Health Education: Theory, Research, and Practice* were scholars from public health programs, while also including medical scholars, and communication scholars. This type of synergy within scholars is promising to see as it collaborates a variety of perspectives from various fields while looking at how to best evolve the emerging subfield of Health Communication into practice and outcomes based solutions.

Glanz, Rimer, and Viswanath (2008c), discussed the important connection that is needed between theory and practice, as well as the value of interrelationships within health communication. A quote from the Dalai Lama represents this viewpoint as well, “Perhaps the most important point is to ensure that science never becomes divorced from the basic human feeling or empathy with our fellow beings” (as cited in Glanz et al., 2008c, p. 24). As the subfield of Health Communication continues to evolve, the discussion of interrelationships will play a significant role within the realm of interpersonal communication practices between patients and physicians.

Glanz et al. (2008c) brought forth a primary concern that has been discussed throughout this paper in reference to the impact of paradigms within Health Communication. Glanz et al. acknowledged that in health education and health behavior, positivism is still the largest body of theory and research within the field (Glanz et al., 2008c). It was refreshing to see that not only did Glanz et al. acknowledge the dominant role of positivism within the field, but they also presented an alternative viewpoint

identified as a constructivist paradigm, arguing that explanation and organization is revealed through the process of discovery rather than preconceived categories before it begins.

Throughout their book, Glanz et al. (2008a) continue to reference a variety of Health Communication theories. One of the important points they made is that some individuals will view their theories as failing to take into account the complexity of factors that influence health behaviors. This is consistent with the argument of this thesis in that alternative viewpoints and critical cultural perspectives are not presented consistently within the field.

Street and Epstein (2008) argued that there is value in analyzing individual behaviors, but there is also significant need to consider the social and community context where beliefs come from. Within the topic of physician-patient communication, Street and Epstein highlighted that there has been over 40 years of research on this topic, thousands of papers, and that we still have seen very little advancement on developing theories or creating outcomes to advance effective communication between a physician and patient.

One of the primary issues in regards to physician-patient communication and relationships that Street and Epstein (2008) indicated, was that while this topic is one of the most interesting, it is still the least understood aspects of medical care, and effective communication is often associated with the best health outcomes. This could be largely due to the fact that scholars have not explored enough alternative viewpoints to truly understand patient needs.

Street and Epstein (2008) presented four different types of physician-patient relationships including *paternalistic*, where “the provider has greater control over the interaction” (p. 239) and minimal involvement by the patient; *mutuality*, where there is a balance between the provider and patient and the interaction and decision making is participatory; *default*, where the result is neither party has control and this can result in patient dissatisfaction; *consumerism*, when patients likely have greater say and the healthcare provider is more likely to be sensitive to the patients goals and objectives.

Through these relationships, Street and Epstein (2008) believed that it would lead to better health outcomes and argued that these relationships would allow researchers to use more theoretical, methodological, and ecological research designs to better understand the physician-patient relationship. Through these perspectives the different types of relationships provide some alternative viewpoints. With the paternalistic and default remaining more positivistic the mutuality and consumerism approaches may take on a slight shift towards a critical cultural approach.

The book *Communicating to Manage Health and Illness* provides an overview of Health Communication and analyzes a variety of areas including interpersonal communication, organizational communication, culture and communication, and the utilization of new media in communication. The book was edited by Dale Brashers and Daena Goldsmith (2009). A variety of topics included in Brashers and Goldsmith’s (2009) book show a strong linkage between how social, cultural, and institutional factors impact health communication. The premise of this book still appears to be positivistic in

nature, but again, discussion regarding the topics are starting to present some slight shifts in incorporating alternative perspectives.

Brashers and Goldsmith's (2009) goal within this volume was to advance the theoretical bases of health communication in two key areas: (a) communication identity, and relationships; and (b) healthcare provider-patient interaction. Brashers and Goldsmith brought a diverse background to their book. Dale E. Brashers, has been the Head of the Department of Communication and Professor of Medicine at the University of Illinois at Urbana-Champaign. Daena J. Goldsmith, is a Professor of Communication at Lewis and Clark College. Her scholarly research has focused on interpersonal communication, health communication, social support, self-disclosure, gender, and culture. Information about the authors is included to gain a better understanding on who has conducted the research, but to also examine what genre Health Communication researchers are coming from and if there is any correlation to scholars publishing more from a medical field perspective or scholars that are more grounded in the field of communication. In addition, by understanding some of their research areas, we may gain insights as to what type of paradigmatic position they may have in the field. Their work together involves a nice synergy of medical expertise, and a cultural communications perspective which supports a slow advancement in looking at the field in a more critical culture perspective.

Research shows that cancer patients with a high self-efficacy may have less negative psychological episodes, as they develop more realistic goals than patients with low self-efficacy (Bandura, 1997). This focus on assessing communication more on the interpersonal relationship between a patient and physician and impacts of a social

environment showed a slight shift into a critical cultural perspective within Health Communication research. Depending on how deep researchers take their analyses on a patient, they could provide a study on socially constructed ideas and environments that impact patients, again allowing for the emergence of a more critical cultural approach within the field.

Case study: Influence of patient perceived physician communication.

A case study by Zachariae et al. (2003) aimed to investigate the influence of patient perceived physician communication style on patient satisfaction, distress, self-efficacy, and perceived control over a disease. There were numerous hypotheses regarding patient satisfaction. One hypothesis stated that an increase in communicative skills of a physician would be associated with greater patient satisfaction (Hypothesis 1), larger reductions in emotional distress (Hypothesis 2), larger increases in cancer-related self-efficacy and perceived control of the disease (Hypothesis 3) and greater ability of a physician to estimate patient satisfaction with a consultation (Hypothesis 4; Zachariae et al., 2003).

For this study, Zachariae et al. (2003) used direct observations of a doctor-patient consultation, structured patient interviews, and questionnaires, which provided a diversity of qualitative and quantitative methods. The study was conducted at an oncology outpatient clinic, where recruited patients were provided questionnaires before and after their consultation with a physician. Patient and physicians were kept anonymous in the study. There were 13 male physicians and 18 female physicians that were part of the study. Seven hundred and four (704) patients were approached with 500 consenting

participants. The procedure involved a patient being given an envelope before and after their consultation. Inside the envelope was a questionnaire for a patient to complete. In addition, physicians were handed questionnaires to complete following the visit to assess their perceived thoughts on a patient's satisfaction level.

The questionnaire contained a brief mood scale; a short 14-item version of the Cancer Behavior Inventory (CBI); a 4-item Perceived Control scale constructed to measure a patient's belief in his/her overall control over their cancer and the recurrence of cancer through his or her own thoughts or behaviors; and additional questions about age, sex, marital status, and educational background.

Results of the study, interestingly, showed physicians that patient satisfaction was higher than physicians had perceived. It showed that patients, in general, were satisfied with their communication with their physicians. The study did, however, note that patients may give socially desirable responses because of anxiety that direct criticism would adversely affect their care; also, that researchers did not know what responses of the 204 patients that declined would have been (Zachariae et al., 2003).

In addition, researchers found that patients that were less healthy tended to be less satisfied with their visit. Attentiveness ranked higher on the scale than empathy, and patients considered both these areas important to the success of their care. In patients' responses, an emphasis was placed on the physician's ability to listen and communicate articulately as well as meeting the emotional needs of their patient.

This study supports the concept that there are more things to measure than just physical health status during a doctor-patient consultation. Zachariae et al. (2003)

indicated that their questionnaire measured levels of distress, self-efficacy, and perceived control over a patient's disease. Zachariae et al.'s study also yielded results regarding more behavioral aspects of a physician-patient interaction including a physician's attentiveness and empathy. This begins to show a slight shift in communication focusing more on a social interaction than just a health status measurement, but the emphasis was still specific to health behavior and outcomes so additional perspectives could be incorporated in this type of research to advance the study of adapting a critical perspective in communication between physician and patient.

Power Relationships

Power relations play a very significant role within a critical cultural perspective in Health Communications. Patients dealing with serious illnesses face a unique set of challenges emotionally, physically, and socially. It is important for a patient to feel a sense of control and involvement in their care. This standpoint would therefore add to the argument that power relationships need to be further examined and applied to health communication practices within a physician-patient relationship.

The concept of uncertainty was discussed earlier in reference to Berger's Uncertainty Reduction Theory in a positivistic approach; but by further examining this structure, we may be able to gain a deeper understanding of how utilizing a critical cultural perspective could impact this situation. If a patient was able to be validated for the knowledge of their body and active in a conversation with their doctor, we could see a dramatic change in health communication.

Tennstedt (2000) claimed that when patients feel they have been involved in their treatment process, they experience greater satisfaction, therefore increasing their adherence to their treatment and receiving, generally, more positive treatment outcomes. This research is still very outcomes/compliance based, but the shift towards patient feelings and inclusion starts to bring forth a more cultural shared value position. When reviewing research that is conducted regarding disclosure and chronic illness, there is an interesting thought to consider, that it is not the stories we hear, but the stories we don't hear, and how to account for the silences (Brashers & Goldsmith, 2009).

Prominent cultural studies theorist, George Herbert Mead, took on an analysis of language. He believed individuals must have certain physiological prerequisites for developing language symbols through his work in *Mind, Self & Society* (Mead, 1934). Mead said the Mind and Self are generated from social process, taking on a cultural studies perspective (Mead, 1934). Mead discussed how social behaviorism and minds and selves are essentially social productions of the human experience.

Within healthcare, specifically, this then proves to be concerning if the only source considered is scientific data, and we are not also looking at how Minds and Selves create a patient experience as referred to by Mead. Data alone is not sufficient to determine patient care; how a patient feels and is included in a shared dialogue situation is critical to patient outcomes, along with doctor acceptance of a patient's knowledge of their own body.

For example, take a demographic group such as the elderly, they may or may not have additional support of family, friends, or have the ability to be their own advocate. They are then solely at the mercy of science and the power which a physician possesses.

While the elderly may be a certain demographic group, this same situation can be associated with low income populations, language and cultural barriers, various geographic regions in the world, as well as any non-medical professional. New media and technology can play a role in sharing knowledge, but not all population groups will have access to shared information, nor will their voice be heard due to power relationships that can be present in patient care.

Feminism and the body: Critical cultural perspective in Health Communication.

Feminism and the body is also a relevant topic that is related to the study of health communication. Schiebinger (2000) indicated that women and men have found ways to occupy the same place in a man's world, but that it is important to recognize that they occupy them differently. This has a significant impact on health communication in that women have a variety of unique gender specific healthcare needs; and women providing a more critical cultural perspective could assist in advancement of communication in healthcare situations.

With feminist theory being intimately connected to the body, there have been a variety of theories developed that also directly take into account the body. Shildrick (1999) noted that in the development of feminist theory, there have been challenges in finding ways in which race and class all intersect to see the body. They indicated there has become a larger focus on the body; and, there has been an increase in writings

surrounding the women's health movement. In *More Than Medicine: A History of the Feminist Women's Health Movement*, Nelson (2015) discussed feminists in the 1960s and 1970s that applied the civil rights movements to begin to make choices about their bodies. Feminist movements began to transform the meaning of healthcare during this time period (Nelson, 2015). Feminist theory says that we have knowledge of our bodies, so without the advancement of a critical cultural approach, how can patient-physician relationships evolve without shared communication?

Without the incorporation of critical theory, many issues in health communication and other fields, such as feminism, would leave important issues related to health communication unaddressed. Shildrick (1999) indicated that women have been encouraged to take control of their own bodies in what they stated as “in the face of a patriarchal medical establishment” (p. 4). Feminist theory is key to this argument for critical cultural perspectives because a feminist theorist would say that we have knowledge of our bodies and that subjective knowledge is knowledge.

Through this more critical approach to healthcare, we find more emphasis on the role of gender, class, and cultural meanings. Various types of qualitative research can be utilized by researchers to identify specific factors in health care to study, and can include interviewing, observation, and textual analysis, and can provide important value to advancing issues in healthcare from a variety of critical cultural scholars and issues.

New Media in Health Communication

Research is continuing to evolve in the area of new media and Health Communication. Patients have been experiencing different benefits due to the abundance

of digital resources being available to assist them in understanding their health conditions. Digital resources could potentially provide a patient with an opportunity to develop more of a cooperative relationship with their provider, if advancements can be made regarding power relations.

In William Gudykunst's (2001) *Communication Yearbook 24*, Gary L. Kreps authored a chapter titled "The Evolution and Advancement of Health Communication Inquiry." At the time of this report, Gary L. Kreps was a health communication scholar ("Gary L Kreps," 2016). One of the areas discussed in his research was the widespread availability of health information to consumers and providers. A negative aspect of the abundance of information through new media that Kreps (2001) identified was that this overabundance of information can confuse or misdirect a patient. This can also lead to the question of legitimacy of medical problems. Kreps made a valid point in that if a person does go online to research symptomology, the patient can easily find themselves diagnosed with a number of critical illnesses or diseases that could merely just be a common cold.

The typical perception would be that patients seek medical care when they are experiencing a medical problem. When patients typically make a decision to seek medical care, patients find themselves developing a storyline of their condition and communicating "good reasons" to justify being at the physician's office as patients feel obligated to legitimize their medical visit (Heritage & Robinson, 2006). The area of problem presentation can be evaluated when a patient feels like they are unable to communicate their condition, or if they feel as if their complaint may not be warranted.

This is where new media resources may be of assistance in providing educational tools for a patient to assist in communicating symptoms to their physician. Having access to research and resources may help a patient in understanding their symptomology and conditions; but it still does not recognize the subjective view they have regarding the knowledge they have to contribute regarding their body.

Through the use of innovative technologies, providers can offset negative provider communication. Real and Street (2009), said that technology has the opportunity to improve trust between a patient and doctor, and continue enhancing the continuity of care with patient-physician communication. It is estimated that 40-70% of people go online for health information (Aspden & Katz, 2001; Mittman & Cain, 2001). With this benefit of online communication, we also begin to run into an issue of access. Access to digital resources are clearly represented in the September 2007 issue of Internet World Stats, highlighting areas such as Africa, which has 14.7% of the world population, but only 3.5% of the world's internet usage. North America on the other hand has 69% internet penetration and only 5.1% of the world's population (Nayar, 2010).

Nayar's (2010) text, *An Introduction to New Media and Cybercultures* proposes that "cybercultures cannot be treated as simply virtual worlds created by computers but as a formation linked to, rooted in, affected by, and impacting upon the material and the real [world]" (p. 29). This connection is essential in exploring: (a) the subfield of Health Communication, and (b) how this cyberculture can bring a more critical cultural viewpoint to digital expansion in the field of Health Communication.

Cyberculture is an electronic environment that Nayar (2010) referred to as a place where various technologies and media forms converge. These places or areas can include video games, the Internet and email, personal homepages, online chats, personal communications technologies, mobile entertainment, and information technologies. Nayar (2010) referenced cyberculture to explore the questions of power, identity, ideology, culture, all which closely align to the cultural studies paradigm.

Michel Foucault was known as a French historian and philosopher who had a strong influence in philosophy and also humanistic and social scientific disciplines (Martin, Gutman, & Hutton, 1988). One of Foucault's lectures was called "Technologies of the Self." Foucault originally presented this seminar at the University of Vermont in 1982. *Technologies of the Self: A Seminar with Michel Foucault*, is now a published book that is a partial record of this presentation and was transcribed by Luther Martin, Huck Gutman, and Patrick Hutton in 1988 after Foucault died.

Foucault's worked on his project on "the self" throughout his career. His work focused on technologies of power and domination (Martin et al., 1988). This is where Foucault referred to the self as being "objectified through scientific inquiry" and through what he termed as "dividing practices." Foucault also became interested in how a human being turns themselves into a subject. Foucault summarized his concern with the self as an alternative to the philosophical questions: What is the world? What is man? What is truth? What is knowledge? (Martin et al., 1988). These philosophical questions are connected to more of a critical cultural paradigm and are important to consider when

looking at how the self is considered or not considered in a physician/patient power relationship.

One area that has continued to grow in Health Communication is the establishment of virtual communities. There has also been a significant amount of online resources developed through healthcare networks and organizations providing support groups for people to connect with others who have similar illnesses. In 2004, Yahoo groups listed almost 25,000 electronic support groups in their health and wellness section (Eysenbach, Powell, Englesakis, Rizo, & Stern, 2004). An increase in social media platforms such as Twitter, Facebook, and blogs has also occurred.

The continued rise in ehealth provides more avenues for similar patient-caregiver connections in electronic community venues. People can gather with similar conditions and share experiences, ask questions, or provide emotional support and self-help. A study conducted by Eysenbach et al. (2004) confirmed that electronic peer to peer self-help groups may be beneficial, but may also cause harm. The research from Eysenbach et al. (2004) showed that there may be little effect to health in having people involved in these types of virtual communities.

Second Life is a type of virtual community that is becoming one of the largest virtual world platforms in use today that emphasizes social interaction (Boulos, Hetherington, & Wheeler, 2007). The virtual world is computer based and is designed so people can interact with their personal created graphical self, which is known as an avatar. This three-dimensional world has continued to develop more educational components in the medical/health industry as well as patient support groups.

Another virtual community was funded by the US National Library of Medicine/Greater Midwest Region of the National Network to provide consumer health information services in a platform called Healthinfo Island. The project has been dedicated to health information in a variety of forms. It aims to provide training, programs, and outreach to virtual medical communities, consumer health resources, and one-on-one support to Second Life residents.

The creation of these types of communities begins to take on a post-humanism point of view, which is defined as an ideology, and a belief, that limitations of the human body – age, disease, appearance, disability – can be overcome and its capabilities – looks, intelligence, strength, disease resistance – can be augmented through technological intervention (Boulos et al., 2007).

New media and mediated communication has grown in a variety of ways, in which print, electronic, and new media impact Health Communication (Kreps, 2001). As researchers begin utilizing more critical cultural perspectives in their studies of communication, and ultimately the healthcare sector begins to embrace some of this ideology, we may begin to see better representation of the patient voice and power relations in health communication practices.

By continuing to look through only a positivistic lens, problems that are surrounding communication in health care will continue to fester. These problems can range from a variety of areas to include interpersonal communication, organizational communication, media related communication, and technology related communication (Lindlof & Taylor, 2011).

Additional Background of Communication Theory

Health Communication is a field that has been dramatically impacted by paradigm changes. Zoller and Kline (2008) proposed that new paradigms challenge the dominate perspectives in medical and social sciences. They referred to the new paradigms as shifting to a viewpoint defined as envisioning health, identities, and as mutually constructed power relations. This paradigmatic shift begins a slightly new movement of Health Communication expanding to include a more critical approach to communication from the traditional positivistic view it has been grounded in.

Case study example on paradigmatic shift: Ellingson 2003.

A case study that represents this paradigmatic shift includes an example in Ellingson's (2003) study of "backstage" communications. This study was a long-term ethnography of an interdisciplinary geriatric oncology team at a regional cancer center. The research revealed the existence and importance of backstage communication that occurred outside of team meetings to enhance the level of teamwork.

Ellingson (2003) utilized seven categories to describe the communication involved in backstage teamwork in the clinic. These categories included: informal impression and information sharing; checking clinic progress; relationship building; space management; training students; handling interruptions; and formal reporting. The study explored the centrality of backstage communication to care for patients as well as various views of teamwork. Ellingson proposed that the study provided a valuable complement to controlled studies of group decision-making through its focus on dynamic communication outside of meetings among dyads and triads of team members in a web-

like organization and extended into group theory. This expansion of a more critical approach to the study of Health Communication will continue to create a new platform for researchers and create more patient focused perspectives and advancements to Health Communication in various platforms.

With numerous articles and theories evolving out of the medical field, Health Communication is still a fairly new and developing field. Craig and Muller (2007) claimed, in the 1990s, that communication theory was not yet a field because communication theorists had not yet found a way to separate health and communication. They referenced many of the multidisciplinary origins of the field and how communication theory had found itself in a variety of academic origins. Adopting alternative paradigmatic approaches would allow the field to be examined from a variety of viewpoints.

Craig and Mullers' (2007) book, *Theorizing Communication: Readings Across Traditions*, has been referred to as the first collection of readings on communication, and was built around seven traditions of communication theory. The seven traditions that Craig organized the field into included: rhetorical, semiotic, phenomenological, cybernetic, sociopsychological, sociocultural, and critical traditions (Craig & Muller, 2007). This comprehensive view has been a good start to organizing the field in a way in which scholars can compare and contrast various scholars' viewpoints.

Em Griffen (2012), a professor emeritus of Communication at Wheaton College in Illinois, provided a format to review communication theory through the book *A First Look at Communication Theory*. This book categorized the field into four key areas –

Interpersonal Communication, Group & Public Communication, Mass Communication, and Cultural Context.

These key concepts/paradigms incorporate a variety of theories categorized to make communication theory easily understandable. This framework provides opportunities for young scholars to see a variety of opinions/concepts in the field, but some may argue that it still lacks a strong sense of paradigmatic structure. Without a defined paradigmatic structure, it does not allow a clear way for scholars to compare and contrast research and ideologies in the field.

By using a framework of paradigms, communication theorists, and especially young scholars, can use a unique structure to compare and contrast positions of power and reality. Power, being based on the idea of who has it or was it merely a consensus or status quo, and the reality of is it internally or externally driven, plays a role in segmenting communication paradigms. Paradigm structures allow for scholars to look at the communication field in a specific lens and understand society and human conditions.

Basic issues such as how the world is put together, the role that communication plays in constructing our lives, and what it has to do with society can all be understood, improved, and changed. With this type of umbrella, the use of paradigms, scholars can study communication to understand, improve, and change assumptions and analyze the impact it has on society. Many notable scholars provided significant impacts to identified paradigms. With Health Communication being heavily grounded in a positivism paradigm, it provides opportunities to further examine how communication theory is used and reflected on within other theoretical perspectives.

Summary

Through this literature review, the research provides just a glimpse of types of research being conducted, as well as what type of scholars are conducting research within the field of Health Communication. Every aspect of Health Communication can somehow be circled back to interpersonal relationships, and communication practices, between physicians and patients.

As Health Communication has evolved and continues to grow and change in regards to alternative perspectives, more scholars are acknowledging that there are additional theoretical positions to consider that may provide perspectives and trigger necessary research to advance Health Communication. These alternative perspectives will not only assist in creating an argument for a shift in paradigmatic perspectives, but will also provide a more comprehensive overview of the subfield of Health Communication through a diverse approach to the field.

As previously discussed, there has been significant research conducted in the positivistic approach to health communication that still dominates the field. In order to advance the field and overall health communication, there is a significant need to provide a more critical cultural approach to this genre.

CHAPTER III

ANALYSIS OF SOCIAL MEDIA IN HEALTH COMMUNICATION

A Study on Utilization of Twitter at Mayo Clinic

Human bodies have had a varied relationship with technology (Nayar, 2010). As social media brings a new dimension into healthcare, it provides communication channels for patients, physicians, and healthcare organizations to share and receive information. The dissemination of information through new media can be a very powerful tool, but assessment of types of communication and theoretical perspectives still may need additional analysis as to how these new digital platforms are being utilized.

Twitter has become a highly utilized tool in social media, as well as a growing source of data in research as it is a free form of information. Currently on Twitter there are 6000 tweets per second and over 500 million tweets per day (QSR International, 2015). In 2007, Twitter began to expand as thousands of users grew into millions of users by 2009, and hundreds of millions of users by 2013 (Liu, Kliman, & Mislove, 2014). Twitter has become a valuable research tool for social science and natural science researchers as it can be quick, non-invasive, and an unobtrusive method to gather and collect data. This collection of data became available in 2014 free of charge, where previously in 2006, data was not able to be accessed, and tweets had to be collected from a search index.

Twitter has not only increased significantly in user engagement, but it has also experienced a significant maturation within the platform through its utilization by organizations and individuals as a channel of communication (Liu et al., 2014). As this Twitter platform has evolved both in personal use and organizational use, it has also become a heavily utilized communication channel for healthcare organizations. In this research, Twitter will be further explored through an analysis on how Twitter is being utilized by the Mayo Clinic.

Framework of Research Study of Mayo Clinic Twitter Platform

With the many assumptions discussed earlier in this paper regarding the dominant approaches in Health Communication being primarily rooted in positivism, this research study will attempt to expose how this assumption continues to dominate even into social media channels of communication, through in-depth Twitter analysis of Mayo Clinic's Twitter usage.

The Mayo Clinic was chosen to be utilized in this study as it is known as one of the top ranked medical centers in the nation. "Mayo Clinic is the first and largest integrated, not-for-profit medical group practice in the world" (Mayo Clinic, 2012, p. 2). Located primarily in Rochester, Minnesota, the Mayo Clinic originated in 1863 by Dr. William Worrall Mayo who came to examine new recruits for the Union Army, and relocated with his family to start his medical practice in 1864 (Mayo Clinic, 2015).

As the clinic grew, it expanded into laboratories, innovative research, and medical education and training programs. By the late 1980s, the Mayo Clinic started to expand its services outside Rochester to include Jacksonville, Florida, and Scottsdale, Arizona.

Today, the Mayo Clinic is located in 6 states, has 5 schools, 59,500 employees, and is a \$9.8 billion dollar enterprise (Mayo Clinic, 2012; Mayo Clinic, 2015).

In a paper published in 2013 in the *Journal of Medical Internet Research*, “A New Dimension of Health Care: Systematic Review of the Uses, Benefits, and Limitations of Social Media for Health Communication,” 98 research studies were identified to include uses, benefits, and limitations of social media for health communication among the general public, patient, and health professionals. Key benefits that were identified in this study included: (a) increased interaction with others, (b) more available, shared, and tailored information, (c) increased accessibility and widening access to health information (d) peer/social/emotional support, (e) public health surveillance, and (f) potential to influence health policy (Moorhead et al., 2013). Moorhead et al.’s research can assist the research in this report in identifying any of the trends listed above in relation to how the Twitter platform is utilized in Mayo Clinic’s social media communication practices.

Research Methodology of the Study

Social media content derived from Twitter can provide data for a mixed methodological study that explores the use of Twitter as a communication channel by the Mayo Clinic. While working in this platform, various data will be examined which will include hashtag strategies, usernames, keywords, and associations that are related to the Mayo Clinic. This information will then be collected through NCapture, which is a web browser extension that can capture content for social media analysis and be imported into NVivo software to analyze the dataset.

NVivo is a software utilized for qualitative data analysis. NVivo enables a researcher to analyze social media to discover what people are saying about a particular event; uncover, analyze and understand the latest trends; as well as watch how opinions change over time. NVivo software allows a researcher to manage large amounts of data and analyze relationships between the data, which works well with the size of dataset used for this study.

In this study, Mayo Clinic's Twitter presence will be further examined to identify hashtag strategies, and usernames that identify with the clinic. Through NCapture, the primary handle of @mayoclinic will be utilized to gather usernames that reference this handle. After all tweets are imported, NVivo will be utilized to organize concepts/ideas into the most heavily identified themes.

Results of Data Collection of Mayo Clinic Twitter Analysis

When beginning the study described in this report, the first area of research conducted was to analyze the social media sphere of Mayo Clinic's internal postings and seek to identify the primary handles or hashtags being utilized. The main primary account that appeared to be associated with the Mayo Clinic was identified as the handle of @mayoclinic.

By utilizing the NCapture Chrome plugin extension, 3061 tweets were collected from a randomly selected time period between September 2015 to February 2016, that were identified based on the twitter handle of @mayoclinic. Both original tweets and retweets were included in this dataset. Through NVivo, a variety of connections were

able to be explored to assist in identifying themes and trends associated with the @mayoclinic twitter handle.

Analysis of Mayo Clinic Twitter Handles

In addition to this handle there were numerous secondary accounts that were identified that represented subsequent departments or specialty medial areas of emphasis. Additional handles collected all appeared to represent one of the following areas: research studies, employees, mayo clinic networks, specialty medical areas, education, and patients.

To gain a better understanding of what types of categories were being discussed, each of the identified twitter handles were coded by the primary category in which their handle was represented. The chart below represents the collection of this data which shows that of the 41 identified handles, 16 represented specialty medical areas, 8 represented affiliated Mayo Clinic networks, 5 represented educational programs at Mayo Clinic, 4 were specifically related to research studies, 3 had an aspect of employee relations, and 1 had an emphasis towards patient feedback or forums.

Table 1. Listing of Mayo Clinic Twitter Handles and Their Areas of Emphasis.

Twitter Handle	Research Studies	Employees/HR	Networks	Specialty Areas	Education	Patients
@MayoClinic	X					
@MayoAllergy				X		
@MayoCareNetwork			X			
@MayoMedEd					X	
@MayoMedallionAZ			X			

Table 1. cont.

Twitter Handle	Research Studies	Employees/HR	Networks	Specialty Areas	Education	Patients
@MayoClinicHS			X			
@ClinicMayo			X			
@MayoClinicNeuro				X		
@MayoNeurosci				X		
@Mayoproceedings		X				
@Mayohumanities				X		
@MayoClinicME			X			
@MayoCareNetwork			X			
@MayoInnovation	X					
@MayoEmployees		X				
@MayoClinicLabs	X					
@MayoClinicPMR				X		
@WHM Mayo Clinic					X	
@Mayoclinicjobs		X				
@Mayoinvents	X					
@MayoClinicSports				X		
@MayobldDiseases				X		
@MayoClinicKids				X		
@MayoMedEd					X	
@MayoCancerCare				X		
@MayoClinicCIM			X			
@KerUnit				X		
@MayoRadiology				X		

Table 1. cont.

Twitter Handle	Research Studies	Employees/HR	Networks	Specialty Areas	Education	Patients
@MayoGradSchool					X	
@MayoClinicCV			X			
@MayoClinicLymph				X		
@MayoClinicGenes				X		
@HerHeartCare				X		
@MyMayohealth						X
@MayoMedSchool					X	
@MayoClinicCLL				X		
@Mayoclinic_cenr					X	
@MayoClinicEM				X		
@MayoCellTherapy					X	
@MayoClinicDPT					X	
@MayoMyeloma					X	

Demographics of @mayoclinic Twitter Analysis

The demographic locations of those who utilized the @mayoclinic handle were almost exclusively located within North America. In addition, there were significant clusters present on the chart that were located in relation to where Mayo Clinic services were predominantly offered. There were also a few mentions that were outside this population that were located in Africa near Zimbabwe.

With the concentration of mentions so heavily populated within the United States, it was interesting to investigate how Zimbabwe would fall on the map. After further

research was conducted, it was identified that Mayo Graduate School's Biomedical Engineering and Physiology program had active international students, of which some had come from Zimbabwe in the past.

Figure 1 provides a broad overview of the areas in which the population of collected tweets was located within this study.

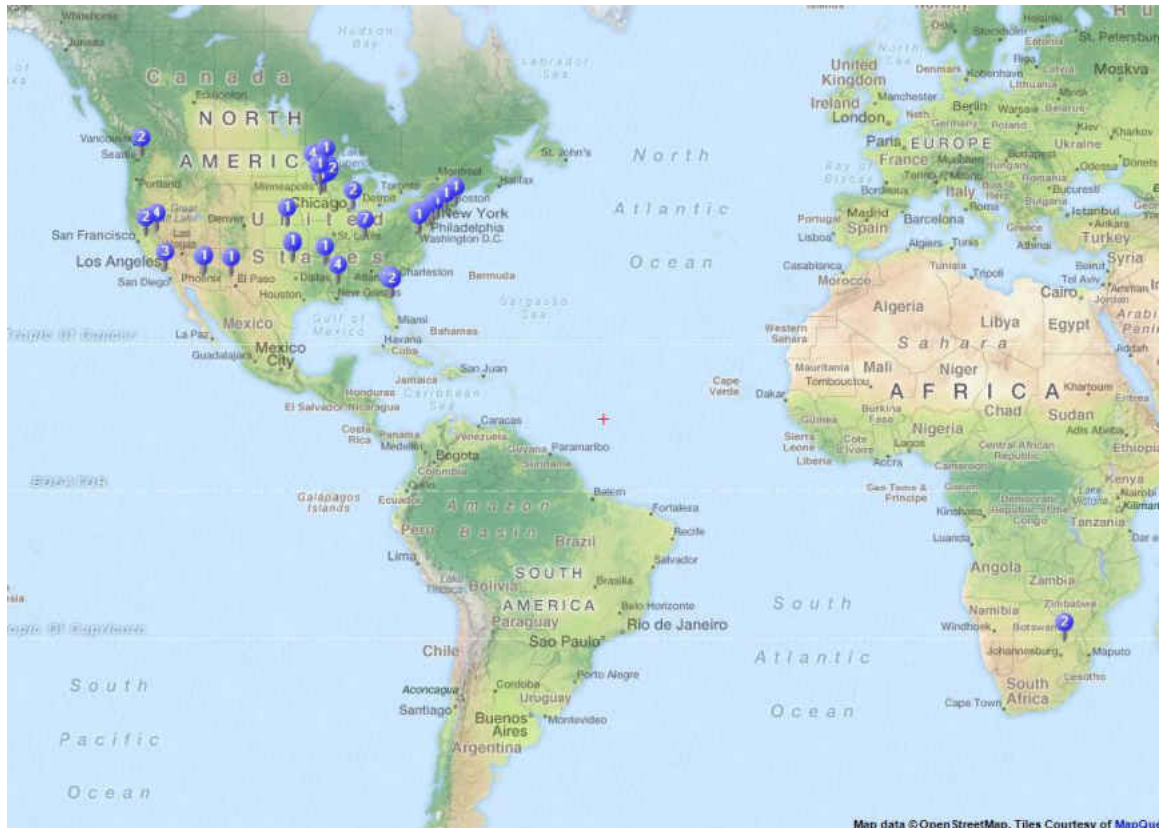


Figure 1. Map of Geographic Area of @mayoclinic References.

Timeline References of @mayoclinic Twitter

The following chart identifies the timeline in which tweets collected were categorized. The primary activity captured extended through the time period of September 2015 through February 2016.

The chart shows a significant increase in the use of the @mayoclinic handle from September 2015 with approximately 160 references to the rapid increase of nearly 600 references by October 2015. This number appeared to stay relatively steady near a 600 mentions a month benchmark for the 4 months following the peak. With many organizations, social media strategies have continued to grow as organizations explore how they can utilize these evolving communication channels (see Figure 2).

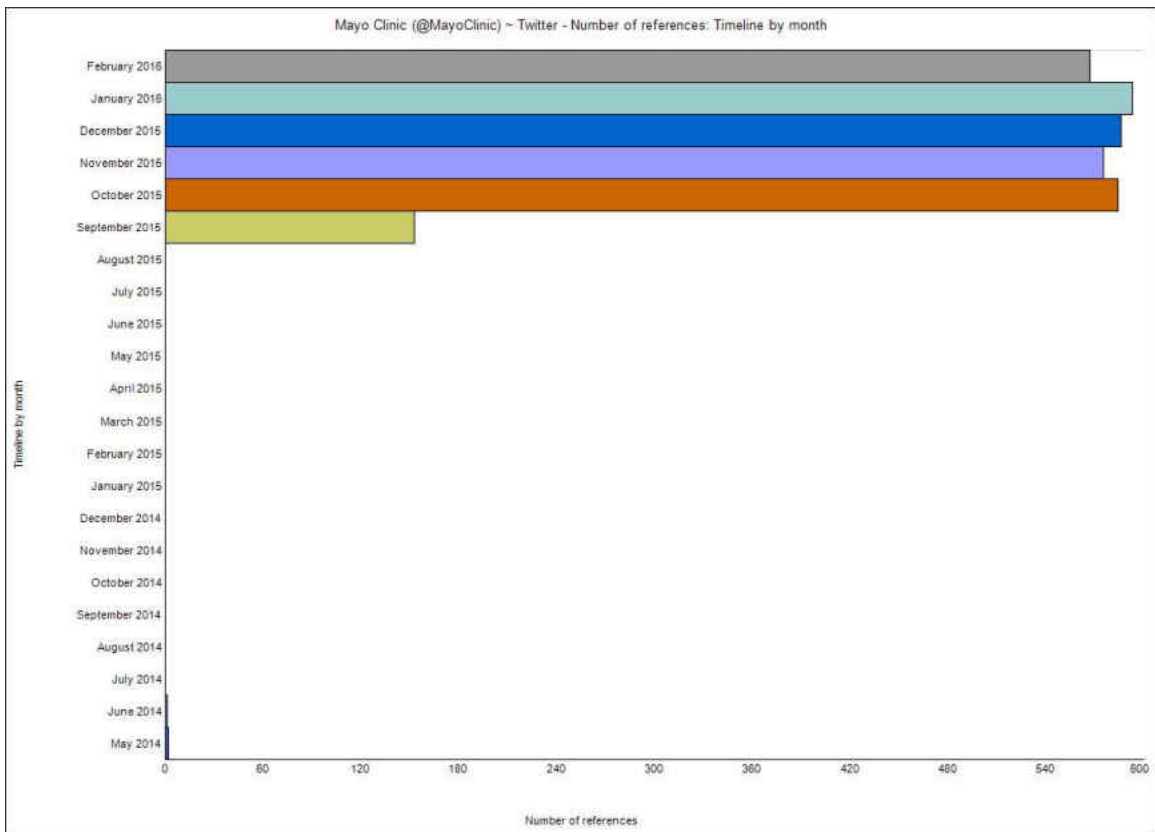


Figure 2. Number of @mayoclinic References by the Month.

Word Association of @mayoclinic Twitter Analysis

Word Clouds in NVivo allowed this researcher an opportunity to have all 3,061 tweets analyzed and identified the words and concepts that received the highest frequency

in association with the @mayoclinic twitter handle. Key twitter handles included: @mayoclinickids, @mayocancercare, @mayohealthwomen, @mayoclincisport, @inseworthynd, @maycliniclabs, @mayoclinic. While Mayo Clinic did not appear to have strong hashtag strategies, prominent hashtags identified through the world cloud analysis included more general terms or medical conditions such as: #pathologist, #periscope, #flu, #healthcare, #stress, #breastcancer, #holiday, and one more clinic specific hashtag with association towards their public relations sector with #mayoclinicradio.

In addition to prominent themes, there were also keywords identified. Many of these keywords had a form of healthcare associated theme to include: diagnosis, screening, sleep, medical, patients, heart, exercise, clinic, research, brain, cancer, physicians, experts, healthy, treat, safety, test, national, tips, kids, common, case, answers, and of course the identifying term of Mayo.

Health education and program awareness and media terms were also key areas identified including keywords such as: education, ways, affect, time, blog, related, activity, next, common, gives, thanks, benefits, program, part, need, help, risk, live, listen, podcast, discusses, now, minute, find, answers, age, news, reduce, story, think, study, family, stay, may, join, year, get, check, find, first, keep, one, look, effective, take, use, week, good, talk, read, and better.

All of these words categorized in the various themes show associations to medical conditions, medical terminology, health education, and media, which are generally associated with health education and awareness programs. These programs generally take

majority of the major health conditions and conversations making their presence widely known. NVivo and NCapture provided convenient tools that were able to gather a significant amount of conversations for a comprehensive dataset. This analysis only examines the internal Twitter environment of Mayo Clinic, and does not represent all of the conversations on the web surrounding the clinic itself. This limits the results to represent the use of the @mayoclinic Twitter handle to be primarily representative of the Mayo Clinic employees and media, and not of the entire web conversation. If all of the conversations on Twitter in relation to Mayo Clinic were analyzed the results may provide a significantly different outcome.

In future studies each tweet from the dataset could be further examined beyond questions of the organizational presence on Twitter as well as the voice or dominance in the conversation. This leads back to the research question presented at the beginning of the paper as to what extent does (or does not) the increased digitization of communication in healthcare perpetuate and extend a positivistic approach?

Based on this study on Twitter and the Mayo Clinic, the research question above faces many limitations as the data gathered only focuses on one type of digital platform and one healthcare organization. From the findings within this study, and especially given the one-way communication, it could be argued that Mayo Clinic's use of Twitter is predominately positioned in a positivistic approach. Health education messages and promotional campaigns that can be delivered in a variety ways to clients; and for many organizations, social media has become a new way to market, reach new audiences, and promote and disseminate knowledge (Glanz et. al., 2008).

As Lovejoy and Saxton (2012) mentioned in Chapter II, many nonprofit organizations are engaging stakeholders through use of Twitter. Lovejoy and Saxton also indicated that organizations have not been using their tweets to engage stakeholders, and their messaging was generally more one-way messages. The findings presented by Lovejoy and Saxton concurred with research findings within this study of Mayo Clinic and the @mayoclinic Twitter handle.

In regards to the Twitter strategy at Mayo Clinic, the clinic did not appear to utilize a significant amount of organizational hashtags, and their messaging also appeared to be more one-way communications. Many of the findings presented by Lovejoy and Saxton (2012), and this research of an analysis at Mayo Clinic supports the predominant position that Health Communication is primarily aimed at what Glanz et.al (2008b) would refer to as seeking positive informed changes in health behavior.

Mayo Clinic has gained prominent exposure on Twitter by populating the conversation through numerous handles and voices. Without a larger study, it is difficult to assess the social media strategy of Mayo Clinic, but based on the following data collected, it could be argued that their methods within Twitter do exemplify the dominating approach of positivism, supporting the conclusion that even with advances in types of digital communication platforms, and until we take a strong look at the role health communication plays, we will continue to see the field predominately rooted in positivism. This is where there is an opening for communication scholars to fill this research gap and begin embracing more research in alternative critical cultural theoretical paradigms which may ultimately extend over into digital platforms and other

communication channels. In Chapter IV, an alternative critical cultural perspective will be explored concerning how a critical cultural paradigmatic position can be utilized within social media.

CHAPTER IV

DISCUSSION AND CONCLUSION OF FINDINGS

Impact of Paradigmatic Structures, Data Collection Findings, and Future Perspectives in Health Communication

The importance of Health Communication as a subdiscipline in Communication continues to grow. Today, types of communication channels continue to expand with the additional impact of new media and digitalization of patient care, as well as many traditional forms of communication that are still present.

As the healthcare industry continues to rapidly change (“Healthcare Industry,” 2016), the question remains as to why the field of Health Communication has only shifted slightly towards an examination of alternative paradigmatic structures in regards to communication. Needs and desires of patients continue to grow, but interactions between patients and physicians still appear to maintain a significant barrier when it comes to the notion of power and the construction of knowledge. Factors such as power, control, and money within the healthcare industry continue to impact why the field is not evolving more towards a critical cultural perspective.

The following research questions presented in Chapter I will be further assessed within the discussions and conclusions in this chapter:

- RQ1: To what extent does (or does not) a positivistic approach to understanding health communication limit the effectiveness of patient-provider communication?
- RQ2: To what extent does (or does not) the increased digitization of communication in health care perpetuate and extend a positivistic approach?
- RQ3: What value might (or might not) an alternative critical cultural theoretical paradigm hold towards enhancing the understanding of health communication?

Limitations of a Positivistic Approach

To refer back to the first research question (RQ1): *To what extent does (or does not) a positivistic approach to understanding health communication limit the effectiveness of patient-provider communication?* Because of the variety of literary examples discovered in this study, and research conducted, results of this study highlight that utilizing a solely positivistic approach in healthcare limits the effectiveness of patient-provider communication and does not allow for a full understanding of Health Communication by limiting the knowledge of the patient.

As noted in the literature review and Chapter I, the field of Health Communication routes all the way back to the 17th century with physician communication (Pescosolido et al., 2009). Over 350+ years later, it was proposed that Barbara Korsch became a pioneer for the field of Health Communication with her early work in patient-physician interaction (Korsch, Gozzi, & Francis, 1968). Still today, the field is still dominantly positioned in one paradigmatic structure as I argue in chapter 1.

Health Communication research has been heavily rooted in the areas of effectiveness and interventions associated with awareness and campaigns. Many of these research areas were also linked to medical journals and conducted by medical physicians and practitioners. Communication scholars have also been contributors in the field, but all appear to have been predominately rooted in the positivism paradigm.

Steps towards the incorporation of alternative critical cultural paradigms have been slow. In 1994, Lupton was one of the first scholars to present the argument that there has been a need for critical cultural perspectives in Health Communication (Dutta, 2010). Still today, another 22 years later, most Health Communication research is still dominated in the same positivistic perspective. There has been a shift, in that critical cultural theorists are presenting the argument that there is a significant need for critical cultural perspectives to be brought to the field (Dutta, 2010).

Initially, when beginning to research this topic, it was interesting to see how significantly dominated the field was by positivism. When I conducted more research based specifically on critical scholars, I was able to become more aware that there were some arguments being made regarding the need for a critical cultural perspective in Health Communication. With communication scholars having so many different positions in the field and paradigmatic structures to not only include positivism and critical cultural studies, but also the paradigms of cultural studies, political economy, among other theoretical perspectives, then how could this subfield of Health Communication still be so dominated by one particular viewpoint?

In healthcare related research, many studies are funded by the National Institute of Health (NIH), or government and national health programs, which may create more of a focus on health outcomes, health behaviors, and health awareness campaigns. Dutta-Bergman (2005) discussed the assumptions of effectiveness and how research that has an emphasis on effectiveness may lead to more critically-theorized funded projects in Health Communication. The argument that Dutta-Bergman (2005) made was that without looking at social and environmental aspects surrounding a study, it may be difficult to truly measure effectiveness if structural constraints are ignored.

Academic textbooks in Health Communication academic textbooks also appeared to be focused on the messaging and delivery of a discourse with the goal to create public awareness campaigns and overall enhance patient compliance and adherence to treatment. While all areas of Health Communication research are significant and have value, there are concerns on whether or not the field is solely positioned in a positivist standpoint. One of the most significant concerns that could be argued would be in relation to a dominated approach of positivism, and the lack of analysis of power and control. Without utilizing a critical cultural perspective, power relationships, which could arguably be one of the largest concerns within effective patient-physician communication, would be unaddressed.

Power relationships between a patient and physician may play a significant role in effective patient-physician communication. As mentioned in Thorne and Robinson (1988), the notion of reciprocal trust in patient-physician communication serves an essential role in effective relationships. Without recognizing the role that power and

trusts plays, it may be difficult to evaluate problems within the patient-physician communication process.

Digitization of Communication in Health Care: Expanding the Positivistic Approach

Many new digital medical resources continue to evolve within the healthcare industry (“Healthcare Industry,” 2016). Digitization of medical records, scheduling appointments, email communication, and social media channels all create more areas for communication to take place. RQ2: *To what extent does (or does not) the increased digitization of communication in health care perpetuate and extend a positivistic approach?* What was interesting to discover within in this study was while number of channels and delivery for communication continue to evolve, types of communication and positivistic structures appear to remain the same. As Lovejoy and Saxton (2012) discussed, most of the messaging of nonprofit organizations and their engagement on Twitter was one-way communication with low engagement. In addition, even in Briones et al. (2010), the American Red Cross was researched as to how they used social media to build relationships. This continues to be a growing trend in nonprofit organizations across the country.

In the Twitter analysis conducted in this study and reported in Chapter III, Mayo Clinic was actively engaged in a “social” media format, yet as described in the results, this social media channel was dominated by Mayo Clinic. With over 41+ Twitter handles, Mayo Clinic has significantly populated the medical conversation and is significantly connected to a variety of medical areas including: health conditions, illnesses, and other health related topics.

This saturation of the channels has created a significantly strong presence for Mayo Clinic, but has lacked the impact of social engagement. One of the major limitations within the Twitter analysis in this study was that the study was solely focused on the Twitter handle @mayoclinic. All of the messaging analyzed and sorted was based off this handle, which resulted in the platform being primarily utilized as a marketing tool for promotional messaging, and medical education.

With 3,061 tweets collected in this dataset, the engagement was fairly limited to mainly include physician interaction and media interaction. Only one of the connections noted a patient interaction/message connected to the @mayoclinic handle based on the large volume of tweets that were analyzed.

With the limitations of alternative engagement mechanisms, this research being conducted with the @mayoclinic handle, it is important to note that research within this study does not represent the entire social media sphere. There is a “digital underground” of individuals who use social media to share a very different story of Mayo Clinic at the web address of <http://mayoinfo.com/>.

This blog is setup as a series of topics that reveal unfiltered patient stories, employee boards, horror stories, whistle blower reports, and patient discussion boards. Mayoinfo.com is one of the forums of this kind that provides a social network for a community of people to come to together and share authentic messages, and genuine questions and answers with other patients, employers, or caregivers. Through this platform, conversations are shared related to medical concerns, employment concerns, as well as success stories, and Mayo Clinic experiences. Individuals engaging with the

forum are able to participate in discussion and provide commentary that creates significant engagement. Within the Mayo Clinic Twitter pages, there was very little discussion or commentary within the tweets. Some tweets had retweets, but the retweets were primarily associated to Mayo Clinic or a media affiliate.

A comparison of information shared on the Twitter analysis from this study and information in the “digital underground” blog exemplifies how social media can be used both in a positivistic paradigm and a critical cultural paradigm. While the Twitter channel remained very positivistic in nature, the blog environment provided a critical cultural typesetting, an alternative to digital information that is collected and gathered by others within this social network surrounding the topic of Mayo Clinic. This concept can be associated with Deleuze and Guattari (1987) and their idea that resistance does not emerge as single unified entity, but rather as a “root-network” of often hidden, or underground forms of communication. They take the concept of a rhizome in comparison to regular tree roots, and that once a tree is cut down (represented like a single website), the tree is dead, eliminating resistance. The rhizome on the other hand represents a different type of structure that connects any point to any other point. The rhizome is thought of dimensions in motion without a beginning or an end (Deleuze & Guattari, 1987). This “digital underground” is much more representative as a rhizome in that the conversations taking place regarding Mayo Clinic are not linked to a single website, but rather have sprung up organically across the web.

As the subfield of Health Communication continues to present the need for more critical cultural perspectives, communication forums like the underground blog, may

serve as critical platforms to educate healthcare organizations on how important it is to gather information that is socially constructed and shared, with no filter, and the many ways in which this can be done in a nonintrusive way. Again, with this underground blog, the host is anonymous, which adds another dimension of uncensored dialogue.

In future studies, to gain a full grasp of the social media activity and digitalization of resources of Mayo Clinic, this study would need to be expanded to include not only Twitter but additional digital platforms such as Facebook, Instagram, blogs, websites, and other evolving digital communication channels. Many of these channels may also follow a similar positivistic standpoint like Twitter in that they are all technological systems designed to convey specific branding and messaging, unlike the unfiltered forum created in the underground blog. There are also areas to consider within social media as to all the beneficial uses and misuses that surround it, and the importance of being cognoscente of some of the abuses related to it.

Relating back to the paradigmatic positions surrounding digitalization in Health Communication, when referring to social media, this again tends to land prominently within the positivistic paradigm. Questions of who has knowledge and who can know about something all play a role in how an organization chooses to utilize various communication channels and strategies. Mayo Clinic, and the majority of organizations with a social presence, makes conscious decisions on how they are going to present themselves to the world, and what type of approach they plan to take in communicating with various groups, which ultimately may position social media as a platform for marketing and branding.

With the previously mentioned “digital underground” blog, this type of digital communication can present a format that may start to shape a shift towards a critical cultural perspective as knowledge is constructed socially through shared meanings, stories, and collaborations, placing power and control into a group. The knowledge that people gain through a blog is more organic with socially constructed ideas, personal situations, and symptomology that is not told to them by a doctor, but knowledge that others have shared and established as their own truth.

While the blog scenario provides a shift towards a more critical cultural perspective, this type of information sharing alone should not replace any of the medical knowledge communicated by medical forums, blogs, digital platforms, and of course consultation with medical professionals. It does, though, present an alternative concept on how digital platforms can be used that would represent a critical cultural perspective.

The Value of Considering an Alternative Critical Cultural Theoretical Paradigm

With a predominance of theoretical constructs for Health Communication based on studies grounded in positivism, a critical cultural approach is needed to provide an alternative perspective to Health Communication. RQ3: *What value might (or might not) an alternative critical cultural theoretical paradigm hold towards enhancing the understanding of health communication?* Especially in this age of digitally oriented computer mediated communication, there is a significant danger, in relying solely on an overtly positivistic/empirical approach to health communication.

In order to demonstrate existing positivistic, and necessary critical cultural approaches to health communication, this Twitter analysis of Mayo Clinic revealed a

clearly positivistic view, while the “digital underground” blog provided a shift towards a more critical cultural perspective.

When looking at Mayo Clinic Twitter accounts from a positivistic standpoint, from a corporate standpoint everything online may appear highly satisfactory, productive, and effective for creating a public sphere (Habermas, 1984) surrounding a specific brand. However, when looking at the field from a critical cultural perspective, a different perspective may be revealed. Dutta (2010) argued that critical theory in Health Communication deconstructs dominant frameworks of risk framing in health communication. Questions that Dutta suggested that are brought forward through critical theory in health communication are social justice, equity, participation, and structural transformation (Dutta, 2010).

Dutta raised questions regarding health campaign awareness that shed light on limitations presented without a critical cultural approach to the field. For example: Whose agendas do interventions serve? What political and economic agendas are served by population control programs? (Dutta, 2010). These are just a few of the many questions that can be raised within a critical cultural approach to health communication.

By using a critical cultural perspective, communication scholars can look through a different lens, which Dutta refers to as “positioning it back on the knowledge-producing enterprise that legitimizes the power structure and perpetuates inequalities of health” (Dutta, 2010, p. 534).

Critical cultural paradigms within Health Communication can also work to what Dutta refers to as “deconstructing the power of and control in health communication”

(Dutta, 2010). This is a large aspect of what is arguably an essential aspect in advancing the field. Looking at the field in a critical cultural perspective may provide the additional lens that will open up new spaces to explore Health Communication in different pathways.

Future Perspectives in Health Communication

With so much of Health Communication research focused on campaigns, promotions, and effectiveness, there is a significant window of opportunity for critical cultural scholars to present new perspectives into the field. New Media in Health Communication continues to rise as technologies begin to transform healthcare practices. While Harris (2013) indicated that new media is not necessarily the answer to improving healthcare, it does provide opportunities to seek alternative communication methods.

Lupton (1994) argued that the focus in the field of Health Communication has historically been placed on individual identity and behaviors, and a lack of attention has been given to social and structural environmental aspects that can affect health. With incorporation of more critical cultural perspectives in the field of Health Communication, Lupton's argument may start to be addressed. Virtual communities, like the "digital underground" blog described earlier in this chapter, are being formed more frequently, which provides an outlet of social connection, and a shared community of ideas. Further research conducted in the critical cultural paradigm may provide additional support to patients, and create more possibilities for a shift in the dominant positivistic approaches present in the field of Health Communication and in healthcare organizations at the time of this report.

Dutta (2010) created a summary on what the future could hold for critical cultural communication scholars by saying:

The appearance of critical cultural scholarship in the pages of Health Communication stands as an invitation for future scholarship that deconstructs the interplay of power and control, co-constructs possibilities for changes in health policies, and seeks out redistributive justice and structural transformation. (p. 538)

For Health Communication scholars, the gate is wide open to explore the complexities of health communication and promote value that alternative perspectives provide to the field. Through medical education programs and schools, the presentation of a critical cultural approach may serve as a key starting place to implement these types of theoretical shifts in impacting Health Communication practices for the future.

Ultimately, through advancements in research and education, a new approach to health communication could be imagined, providing a shift towards acknowledging the patients' understanding of their body and increased attention to the social environments that impact health.

APPENDIX

Appendix A
Power Point Presentation – Thesis Defense

Slide 1

**Towards the Enhancement of a
Critical Cultural Paradigm in
Health Communication:**

An Examination of the Impact of Paradigmatic Structures

Thesis Defense – Laura Elizabeth Arneson

Slide 2

Introduction

- Why Health Communication?
- Paradigms, Health Communication, Digital Communication & Research Tools
- Thesis Topic: Collaboration of Health Communication, Paradigms, Digital Communication

Slide 3

Examination of Paradigmatic Structures Related to the Field of Health Communication

- Subfield of Health Communication examined through a positivistic and critical cultural paradigm
- Examine underlying assumptions related to theoretical approaches in Health Communication
- Research study attempts to show how this assumption of dominant positivistic approach may extend into new digital communication platforms
- Framework of the study includes personal observations, literature review, and Twitter Analysis of @mayoclinic

Slide 4

Research Questions

- **RQ1:** To what extent does (or does not) a positivistic approach to understanding health communication limit the effectiveness of patient-provider communication?
- **RQ2:** To what extent does (or does not) the increased digitalization of communication in healthcare perpetuate and extend a positivistic approach?
- **RQ3:** What value might (or might not) an alternative critical cultural theoretical paradigm hold towards enhancing the understanding of health communication?

Slide 5

Overview of the Subfield of Health Communication

- 1600s – “pre-outcomes era” physicians communicating among themselves regarding birth and death rates (Brashers & Goldsmith, 2009)
- 1800s – communicating expanding to best practices among physicians (Brashers & Goldsmith, 2009)
- 1900s - began to incorporate statistical data (Pescosolido et al., 2009)
- 20th century - new technology to acquire patient information (Pescosolido et al., 2009)
- Heavily rooted in predicting and controlling patients attitudes and behaviors, and designing and assessing interventions to achieve desired outcomes (Lindlof & Taylor, 2011)

Slide 6

Paradigmatic Approach of Positivism

- Dominant approach to the field of Health Communication
- Approach utilized to assist healthcare workers in predicting and controlling patient attitudes and behaviors, and in designing and assessing interventions to achieve desired outcomes (Lindlof & Taylor, 2011; Freimuth, Massett, & Meltzer, 2006)
- Fails to analyze the role of power in relationships
- Assumes that the truth is to be discovered and that reality is externally driven
- Focus in Health Communication primarily placed on individual identity and behaviors (Lupton, 1994)

Slide 7

Paradigmatic Approach of Critical Cultural Studies and the Movement Towards Alternative Perspectives

- Limited approach in the field of Health Communication
- Alternative approach to positivism:
 - Critical Cultural Studies examines the role of power/positivism fails to analyze this
 - Reality is socially constructed/positivism reality is externally driven
- 1994, first critical essay in Health Communication by Deborah Lupton (Dutta, 2010)
 - Lupton discussed the dominant approaches to the field and the problems surrounding power and control in advancing healthcare solutions (Dutta, 2010)
- C. Tracy Orleans (2008) acknowledged the need for more critical cultural perspectives in Health Communication.

Slide 8

Research Analysis of Social Media in Health Communication

- Study of Utilization of Twitter at Mayo Clinic
- Attempt to expose how positivism continues to dominate even into social media channels of communication
- Twitter platform used by millions, Mayo Clinic one of the most top ranked medical centers in the nation

Slide 9

Methodology

- Study included analyzation of hashtag strategies, usernames, keywords, and associations related to Mayo Clinic
- Collected data through [Ncapture](#) to capture content and imported into [NVivo](#) to analyze the dataset

Slide 10

Data Collection Results:

Primary hashtags & Twitter handles

- Primary Hashtags:
#mayoclinic
- Primary Handle:
@mayoclinic
- Imported Tweets (6 month analysis):
3,061 (Sept. 2015 – Feb. 2016)

Slide 11

Analysis of Mayo Clinic Handles

- o Primary Handle:
 - @mayoclinic

- o 41 handles identified:
 - 16 specialty medical areas
 - 8 affiliated Mayo Clinic networks
 - 5 Mayo Clinic education programs
 - 4 research studies
 - 3 employee relations
 - 1 patient feedback/forum

Table 1. Listing of Mayo Clinic Twitter Handles and Their Areas of Emphasis.

Twitter Handle	Research Studies	Employees/HR	Networks	Specialty Areas	Education	Patients
@MayoClinic	X					
@MayoStrategy				X		
@MayoCareNetwork			X			
@MayoMedEd					X	
@MayoMedEd@onAZ			X			
@MayoClinicIT			X			
@Clin@Mayo			X			
@MayoClinicNeuro				X		
@MayoEveoact				X		
@Mayo@oncology		X		X		
@Mayo@humanitas				X		
@MayoClinicME			X			
@MayoCareNetwork			X			
@Mayo@education	X					
@Mayo@employees		X				
@MayoClinicLinks	X					
@MayoClinicFAM				X		
@Mayo@clinic					X	
@Mayo@clinicjobs		X				
@Mayo@events	X					
@Mayo@clinicsports				X		
@Mayo@oldDiseases				X		
@Mayo@clinicedits				X		
@Mayo@MedEd					X	
@Mayo@CancerCare				X		
@Mayo@Clinic@CM			X			
@Kert@M				X		
@Mayo@radiology				X		
@Mayo@radi@school					X	
@Mayo@ClinicCV			X			
@Mayo@ClinicLymph				X		
@Mayo@ClinicGenes				X		
@Mayo@Cancer				X		
@Mayo@health						X
@Mayo@Medical					X	
@Mayo@ClinicLL				X		
@Mayo@clinic_cem					X	
@Mayo@ClinicIA				X		
@Mayo@ClinicTherapy					X	
@Mayo@ClinicDPT					X	
@Mayo@Myakoma					X	

Slide 12

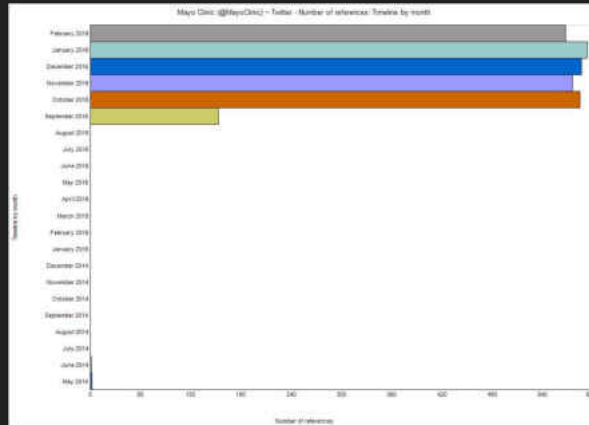
Demographics of @mayoclinic Twitter Analysis

- o Location:
 - Primarily North America
 - Few clusters in Africa, Zimbabwe

Slide 13

Timeline References for collection of Tweets

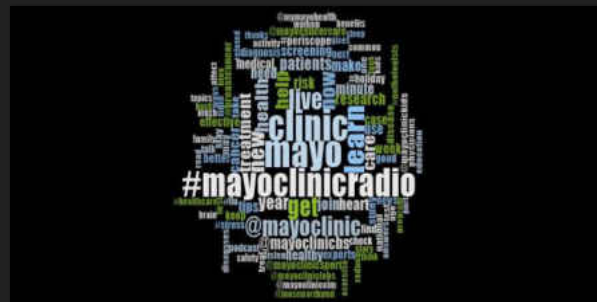
- o Data Collection:
Sept. 2015 - March 16 (6-month)
- o Approx. 600 mentions a month



Slide 14

Word Association of @mayoclinic Twitter Analysis

- o Words & concepts with highest frequency associated with @mayoclinic
 - Hashtags primarily medical conditions
 - Keywords primarily medical terms & medical education/awareness



Slide 15

Results Summary

One-way communication/positivistic approach

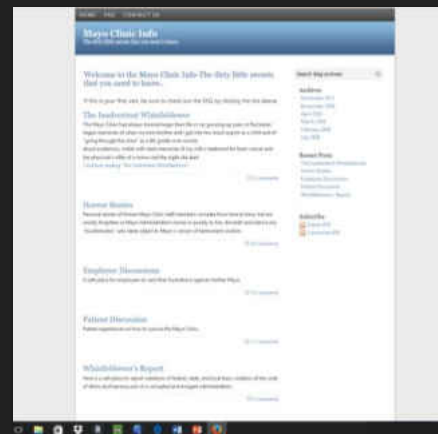
- Primary emphasis on health education messaging
- Limited patient interaction & incorporation of patient viewpoints
- Largest users related to physicians, media, and Mayo
- Mayo clinic saturated the channels with a strong presence but lacked social engagement

Slide 16

Alternative Approach: Shift Towards a more Critical Cultural Perspective

"Digital Underground" – mayoinfo.com

- Blog that reveals unfiltered patient stories
- Patient discuss boards
- Whistle blower reports
- Employee boards
- Authentic stories & experiences constructed by patients, public, employees



Slide 17

The Value of Considering an Alternative Critical Cultural Theoretical Paradigm

- Critical cultural theory could bring forward the following considerations in Health Communication:
 - Who has the authority over the body?
 - Provider becomes a resource versus the expert
 - The notion of knowledge, how it is defined, who has the authority, and how truth is constructed (Patient's knowledge would be left unheard)
- Street and Epstein(2008) reference patient/physician relationship and argue that effective communication is often associated with best health outcomes, and that scholars have not explored alternative viewpoints to truly understand patient needs.

Slide 18

Future Perspectives of Health Communication

- Communication scholars need to expand/increase research contributions in a critical cultural perspective
- Possible inclusions of a critical cultural perspectives into medical education programs could shift this dominant approach
- Ultimately, through research and education, we could begin to imagine how providing a critical cultural perspective could look to the future of health communication.
 - Deconstruction of power & control (Dutta, 2010)
 - Shift towards acknowledging the patients understanding of their body
 - Increased attention to social environments that impact healthcare

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