View metadata, citation and similar papers at core.ac.uk

brought to you by CORE

provided by Clemson University: TigerPrints

Clemson University
TigerPrints

All Dissertations | Dissertations

8-2012

ANALYZING NURSE-PHYSICIAN DISCURSIVE PRACTICES IN ACUTE PATIENT CARE

John Dinolfo
Clemson University, dinolfo@g.clemson.edu

Follow this and additional works at: https://tigerprints.clemson.edu/all_dissertations

Part of the Communication Commons

Recommended Citation

Dinolfo, John, "ANALYZING NURSE-PHYSICIAN DISCURSIVE PRACTICES IN ACUTE PATIENT CARE" (2012). *All Dissertations*. 1001.
https://tigerprints.clemson.edu/all_dissertations/1001

This Dissertation is brought to you for free and open access by the Dissertations at TigerPrints. It has been accepted for inclusion in All Dissertations by an authorized administrator of TigerPrints. For more information, please contact kokeefe@clemson.edu.

ANALYZING NURSE-PHYSICIAN DISCURSIVE PRACTICES IN ACUTE PATIENT CARE

A Dissertation
Presented to
the Graduate School
of Clemson University

In Partial Fulfillment
Of the Requirements for the Degree of
Doctor of Philosophy
Rhetorics, Communication, and Information Design

---

by
John D. Dinolfo
August 2012

Accepted by:

Dr. Bryan E. Denham, Committee Chair
Dr. Rosanne H. Pruitt
Dr. David Blakesley
Dr. Barbara A. Heifferon

Copyright © John D. Dinolfo, 2012

All rights reserved.

DEDICATION

This work is dedicated to my parents, John and Teresa Dinolfo, and to my brother, James Dinolfo, leukemia warrior.

ACKNOWLEDGMENTS

This work could not have occurred without the support and assistance of many others. I thank my doctoral Committee for their instruction and friendship. Dr. Bryan Denham, Committee Chair, provided invaluable guidance regarding mixed methods research, framing analyses, and communication theory and practice. Also essential to this work was the guidance of Committee members Dr. David Blakesley (Burkean theory and practice), Dr. Rosanne Pruitt (Nursing theory and practice), and Dr. Barbara Heifferon (healthcare rhetoric and composition). The dissertation benefitted from the generous assistance of School of Nursing faculty Dr. John J. Whitcomb, who reviewed chapter content and advised about criteria from the American Association of Critical Care Nurses and Dr. Tracy Fasolino, who critiqued the pre- and post-intervention surveys.

I thank the Nursing students in English 315 who enthusiastically participated in the dissertation study, Dr. Victor Vitanza, Director of RCID, for his encouragement and support, and the English Department for the opportunity to teach science writing and communication at Clemson. I am grateful to fellow doctoral students in RCID, faculty in RCID, the English Department, the Department of Communication Studies, and other friends at Clemson and elsewhere for their support and encouragement.

I especially thank my parents, John and Teresa Dinolfo, for the values, love, and wisdom they have imparted, also my brothers and their families, in particular, our brother, Jim, for his heroic witness in the struggle against leukemia, as well as many other family members whose affection and support have meant so much. The confidence and encouragement of my adult children Kate, Janna, and Christopher, and son-in-law, Ryan, made this work consistently meaningful and worthy. Above all, I thank my wife Debra, whose patience, love, and wisdom sustained this work and are an indispensable blessing.

TABLE OF CONTENTS

Page

TITLE PAGE ………………………………………………………………………. i

COPYRIGHT ……………………………………………………………………… ii

DEDICATION ……………………………………………………………………… iii

ACKNOWLEDGMENTS …………………………………………………………….. iv

LIST OF TABLES ………………………………………………………………….. xi

LIST OF FIGURES ………………………………………………………………. xi

ABSTRACT ……………………………………………………………………….. 1

I. INTRODUCTION ……………………………………………………………….. 3

Inter-professional Clinical Communication and Patient Safety ………….. 3

TABLE OF CONTENTS (continued)

Page

II. LITERATURE REVIEW 7

Rhetorical and Communication Perspectives: 7
Terministic Screens / Message Frames

Other Communication Theories That Inform This Study.................... 16

Other Rhetorical Perspectives That Inform This Work: 22
Orality Versus Literacy

Visual Theories Relevant to This Study: New Media, ... 27
Visual Information Design

Nursing Perspectives That Inform This Study: 33
The SBAR Communication Tool

Rhetoric and Composition Perspectives That Inform 38
This Study

Of Lions and Lambs. A Representative Narrative in 42
Inter-professional Health Communication

Research Predictions 44

III. METHODS 48

Subject Recruitment and Sample Size 48

Description of Treatment Interventions 49

Summary of Survey Tools and Data Collection 49

Data Assessment 54

IRB Approval 55

TABLE OF CONTENTS (continued)

Page

IV. RESULTS 56

Summary of Quantitative Results in Tables 4-9 56

Additional Observations Regarding the Quantitative Data 69

Summary of Qualitative Rich Features in Table 10 70

Salient Responses to the First Post-Intervention Qualitative Survey …….. 73

Summary of Qualitative Rich Features in Table 11 77

Salient Areas of Convergence in Student Free Writing Data, ... 83
Irrespective of Groups

Salient Responses to the Second Post-Intervention Qualitative Survey ….. 84

V. DISCUSSION 88

Part A. Quantitative Analysis: Rhetorical and Health Communication … 88
Implications of the Likert Data. Speculations about the Framing Effects
of the Print and Video Narratives

Noticeable Trends in Variance among All Traditional ………….. 89
and Non-Traditional Students Combined into One Group

Traditional and Non-Traditional Students Who Received the ….. 89
Print Scenario: Table 4 Noticeable Variances

Traditional and Non-Traditional Students Who Received ……….. 91
the Video Scenario: Table 5 Noticeable Variances

TABLE OF CONTENTS (continued)

Page

V. DISCUSSION (continued)

Noticeable Trends in Variance among Traditional and Non-Traditional Students Separated By Group …………………... 93

Traditional Students Who Received the Print Scenario: Table 6 Noticeable Variances. …………. 93

Traditional Students Who Received the Video Scenario: Table 7 Noticeable Variances. ………… 94

Non-Traditional Students Who Received the Print Scenario: Table 8 Noticeable Variances. …… 95

Non-Traditional Students Who Received the Video Scenario: Table 9 Noticeable Variances …… 96

Possible Causes for Absence of Statistical Significance in Likert Data ….. 98

Part B. Discourse Analysis: Rhetorical and Health Communication Implications of the Free Writing Data. Speculations about the Framing Effects of the Print and Video Narratives ……………. 101

Speculations about the Framing Effects of Situatedness on Study Participants' Perceptions ……………… 103

Speculations about the Framing Effects of Salience on Study Participants' Perceptions …………… 105

Speculations about the Framing Effects of Emotion on Study Participants' Perceptions …………… 106

Speculations about the Framing Effects of Narrative Construction on Study Participants' Ability to Attribute Accountability ……… 107

Speculations about the Framing Effects of Orality and Literacy on Participants' Perceptions …………. 109

Speculations about the Framing Effects of Visual Rhetoric on Participants' Perceptions ……………110

TABLE OF CONTENTS (continued)

Page

V. DISCUSSION (continued)

Flipping the Terministic Screens—Perspective by Incongruity ………….. 112

Sociocultural and Interdisciplinary Implications for Nursing Education … 113

A Growing Consensus across the Cultures Of Medicine and …………….. 116
Nursing Regarding Communication: Implications for Health
Communication Rhetorical Studies

Implications of the Study for Acute and Critical Care Nursing ………….. 117

The Framing Effects of Autonomy ……………………………………….. 118

Potential Relevance of the Study for the AACN's Healthy Work ………... 120
Environment Assessment

Implications of the Study for Developing New Media Pedagogies ………. 122
in Nursing Education

Limitations of the Current Empirical Study ………………………………. 127

Recap of Study Conclusions as a Basis for Future Research ……………... 128

APPENDICES ……………………………………………………………….. 136

ADDENDUM A: Free Writing Data for Discourse Analysis. ………………….. 136
Print Respondents

ADDENDUM B: Free Writing Data for Discourse Analysis…………………….. 151
Video Respondents

ADDENDUM C: Proposed New Media Course in the Health Disciplines ……… 162

REFERENCES ………………………………………………………………… 168

LIST OF TABLES

Page

TABLE 1: Pre- and Post-Intervention Likert Survey Items ..……………….. 50

TABLE 2: First Post-Intervention Qualitative Survey ……………………….. 53

TABLE 3: Second Post-Intervention Qualitative Survey …………………….. 53

TABLE 4: Means and Standard Deviations for Print Scenario Respondents … 58

TABLE 5: Means and Standard Deviations for Video Scenario Respondents .. 60

TABLE 6: Means and Standard Deviations for Traditional Students Who ….. 61
Responded to the Print Scenario

TABLE 7: Means and Standard Deviations for Traditional Students Who …... 63
Responded to the Video Scenario

TABLE 8: Means and Standard Deviations for Non-Traditional Students …… 66
Who Responded to the Print Scenario

TABLE 9: Means and Standard Deviations for Non-Traditional Students …… 68
Who Responded to the Video Scenario

TABLE 10: Salient (Rich) Features for Inductive Discourse Analysis. Print …. 70
Respondents. Qualitative Post-Intervention Survey 1

TABLE 11: Salient (Rich) Features for Inductive Discourse Analysis. Video … 77
Respondents. Qualitative Post-Intervention Survey 1

LIST OF FIGURES

Page

FIGURE 1: Information Concerning Participation in a Research Study. ……… 134
Clemson University

ABSTRACT

This mixed methods study in inter-professional health communication assesses the pedagogical role of writing and visual communication in the education of non-traditional and traditional Nursing students as they interpret and apply the concepts of message framing and message reception in nurse-physician communication. To achieve that goal, this study analyzes the dynamics of terministic screens as message frames that can determine message reception in nurse-physician communication regarding the status of an acute care patient.

The study was conducted in two Nursing writing and communication classes during the Spring 2011 semester. Two study groups (combined across classes) included a mixed population of traditional and non-traditional undergraduate Nursing students. During the same week in March 2011, one study group viewed the YouTube video *Of Lions and Lambs.* Another study group read the transcript of the video. Each group completed pre- and post-intervention Likert-style questionnaires designed to elicit perceptions regarding the efficacy of nurse-physician communication, as reflected in the print or video scenario. Each group also completed three post-intervention qualitative surveys. The qualitative free-writing arm of the study included a focus on situated dialogic learning regarding determinants of effective inter-professional communication.

Nonparametric ANOVA analyses were conducted to assess the quantitative Likert data. A discourse analysis was conducted to assess the qualitative free-writing data. Those analyses suggest that the agency of the spoken word to support or confound clinical ethos and patient care is exemplified in the video and script for *Of Lions and Lambs.*

This study suggests a role for combined print and video pedagogies to teach and assess effective versus ineffective nurse-physician communication in acute patient care. More research is needed to confirm how best to combine those pedagogies in traditional and new media contexts. Additional quantitative and qualitative results when complete may help to clarify those issues.

I. INTRODUCTION

Inter-professional clinical communication represents a promising and relatively unexplored field in the respective disciplines of health communication, communication across the curriculum, and rhetoric and composition in the health sciences. This empirical study focuses on the agency of written versus spoken language in nurse-physician communication during a hypothetical patient crisis. Toward that end, the dissertation inquires and speculates about the rhetorical and clinical consequences of effective versus ineffective nurse-physician communication in acute patient care, as perceived by a convenience sample of nursing students.

Inter-professional Clinical Communication and Patient Safety

Interdisciplinary research in the dynamics of nurse-physician communication is contributing new and potentially valuable baseline data to other studies in patient care and patient safety. Indeed, such studies are necessary, based on the Institute of Medicine's groundbreaking report about the estimated number of preventable deaths each year in U.S. hospitals -- as many as 98,000 (Kohn, Corrigan, Donaldson, & the Committee on Quality of HealthCare, 2000). In that initial report, and in a follow up assessment in 2004, the Institute of Medicine (IOM) emphasized the need to improve

inter-professional clinical communication in order to reduce the risk of human errors regarding patient identification, treatments, diagnoses, discharge matters, and other communication issues. The consensus today is that the risk is not appreciably lower than it was in the 1990s when data for the initial IOM report were collected. Thus, nursing schools and medical schools in the United States are increasingly emphasizing the need to build a culture of inter-professional teamwork and collaboration to enhance patient safety and patient care (Lujan, 2010, AACN, 2010; AACN, 2003).

Improved inter-professional communication is essential to such interdisciplinary team work (DiMeglio et. al., 2005; Barrett, Platek, Korber, & Padula, 2009; Ulrich et al., 2009; Yedidia et. al., 2003). Healthcare researchers have defined and distributed standards to improve inter-professional communication in critical and acute patient care (Kaiser Permanente, 2010). Nonetheless, much work remains in learning about factors that contribute to effective inter-professional communication and collaboration in health facilities. Much work also remains in learning how best to communicate and teach such new research knowledge to students across the clinical disciplines. This mixed methods study was designed to help fill the gap in existing knowledge regarding factors that contribute to, or obstruct, effective communication between nurses and physicians in hospital settings.

The dissertation is grounded upon the following assumptions:

1. Effective communication is holistic and multi-dimensional.
2. Message frames are terministic screens that enhance or undermine the ethos and efficacy of inter-professional communications. Here "terministic" refers to the ability of language to focus reader and audience attention on selected terms, concepts, arguments, and implications, while inevitably deflecting attention from other terms, concepts, arguments, and implications that may warrant consideration.
3. Effective message framing can be taught and learned through hybrid pedagogies. Information design of that pedagogical communication is as essential as information delivery.

This empirical study is possible because of previous work by many theorists and researchers. To establish the context for this dissertation study, the author has relied upon

a. The cultural theories of rhetorician Kenneth Burke and sociologist Erving Goffman.
b. Second stage theoretical work by communication scholars Robert Entman, Dietram Scheufele, Robin Nabi, Shanto Iyengar, Daniel Kahneman and Amos Tversky, Zhongdang Pan, and Gerald M. Kosicki. Their work operationalized concepts articulated in the rhetorical and phenomenological analyses of Burke and Goffman.

c. The theoretical perspectives of Walter Ong regarding the primacy and ethos of the spoken word in human communication and cultural transmission.
d. Other theoretical work in visual rhetoric, visual communication, and information design from scholars Carol David, Ann Richards, Marguerite Helmers, Charles Hill, Barbara Maria Stafford, Nancy Allen, Ann Marie Seward Barry, Jay Bolter, and Richard Grusin.
e. Insights from selected researchers in Nursing and inter-professional health communication, including nurse-educator Kathleen Bartholomew, an advocate for consistent nurse-physician use of the SBAR communication tool to enhance patient care and patient safety. The acronym, SBAR, stands for Situation, Background, Assessment, and Recommendation.
f. Insights from prior research in rhetoric, composition, and communication.
g. Insights from prior scholarship and practice regarding writing and communication in the scientific disciplines.

The literature review in Chapter 2 establishes the interdisciplinary theoretical context for the empirical study in health communication and healthcare rhetoric and composition that is described, reported, and interpreted in this dissertation. The quantitative and qualitative methods for the study are described in Chapter 3. Data from the quantitative and qualitative arms of the study are reported in Chapter 4. Those data are interpreted from an interdisciplinary perspective in Chapter 5.

II. LITERATURE REVIEW

A. Rhetorical and Communication Perspectives:

Terministic Screens / Message Frames

Kenneth Burke and Erving Goffman

As Kenneth Burke (1966) has argued, language and images act rhetorically to screen reality. Such terministic screens filter certain information for human perception, while deflecting other information and insights. Implicit in the terms we use and the visualizations we construct are the observations we make, and the conclusions that emanate from those perceptual filters. Terministic screens are powerful tools for inducing or preventing consensus and collaboration grounded in common goals and a shared social identity, in Burkean terms, the rhetorical processes of identification and consubstantiality. According to Burke, identification and consubstantiality are achieved when interlocutors with competing interests and goals discover and establish common ground and common purpose – i.e., rhetorical consensus -- through the rich agency of language.

Burke (1966) argued that “Man is the symbol using animal, inventor of the negative, separated from his natural condition by instruments of his own making, goaded toward hierarchy, and rotten with perfection” (p. 16). Embedded in that “definition” is the awareness that language as symbolic action can work for the benefit or harm of individuals, groups, societies, and nations. Language’s ability to function for good or ill is the result of a long and mysterious evolution, Burke contended, and regardless of how language originated – whether it is biologically or culturally determined, or a mixture of both – language is a medium for, and embodiment of, instrumental action in the world, contextual action that is typically symbolic as well as pragmatic. Burke also argued that language acts in different symbolic ways in the sciences and the humanities. “Scientistic” language, as Burke referred to it, tends to emphasize and elaborate on the logical definition and description of things that do or do not exist. “Dramatistic” language, on the other hand, tends to emphasize ethical and moral considerations that are typically reflected “in stories, plays, poems, the rhetoric of oratory and advertising, mythologies, theologies, and philosophies after the classic model” (Burke, 1966, p. 45). Whether scientific or literary, language acts rhetorically to persuade, Burke argued. In his view, the two ways of categorizing how language functions symbolically do not operate exclusively. Rather, they necessarily converge or diverge as language seeks to characterize subjective and objective knowledge across the spectrum of human experience.

The key point for the current study is that each category of language employs terministic screens to generate the kind of knowledge it seeks.[1] Put another way, the terms we use act symbolically to select or deflect what we perceive and know about experience. Burke (1966) argued that "much that we take as observations about 'reality' may be but the spinning out of possibilities implicit in our particular choice of terms" (p. 46). The filtering process, in turn, can be a medium for the creation or debunking of ideology.

In the best of cases, language that operates as symbolic action will lead to socially constructed consensus and collaboration – to identification and consubstantiation in Burkean terms. Although that ideal is never fully realized, Burke believed it can and should be approximated, and rhetoric is necessary to achieve that desired consensus, cooperation, and collaboration. Identification occurs when two or more parties with dissimilar interests, goals, strategies, and other characteristics choose to align themselves in accord with a common goal, principle, value, and desired outcome, thus adopting common rhetorics. As Burke (1969) explained, "A doctrine of *consubstantiality,* either explicit or implicit, may be necessary to any way of life … and a way of life is an *acting-together*; and in acting together, men have common sensations, concepts, images, ideas, attitudes that make them *consubstantial"* (p. 21). Burke further argued that identification is necessary to offset the division that is inherent in human societies. For Burke, the impulse toward human identification and human division are ironically opposed to each other and are central to human communication.

Thus, for Burke, rhetoric among individuals, groups, societies, and nations represents more than the *techne* of finding the best available means to persuade a given audience, as Aristotle taught. Rather, Burke extends and problematizes Aristotle's arguments and prescriptions regarding the practice of rhetoric as a civic good and as leadership training for elites in Athenian society four centuries before the birth of Christ (Aristotle, Princeton Bollinger Series, 1984). Burke allowed that persuasion is affected by unconscious as well as conscious (cognitive, behavioral, cultural) factors, and those forces inevitably shape and reshape rhetoric's main function, to effect, if possible, identification and consubstantiation among and across groups and societies. Burke's methodology for analyzing rhetorical motives – dramatism or the dramatistic pentad -- helps us to understand how the ambiguities of language lead to either identification or division in human communication.[2] In each case—whether in consensus or dissensus—a dialectic of cooperation or competition is involved. As David Blakesley explained (2002), dramatism as a methodology "shares with rhetoric a focus on human symbol-use as a social process of both describing and influencing motives … For Burke, human relations should be guided by the fullest understanding possible of the basis of our disagreements, our wars of words (logomachy)" (pp. 41-42).

Burke also argued that form is essential to meaning-making because form imposes pattern and order on written and spoken words. Essentially an appeal to desire, form is also a generator of paradox and disputation which, in turn, can challenge and change

paradigmatic ways of thinking and acting. According to Burke, a key element of form is a writer's sense of piety—how and why things should go together. In his analysis of Burke's methodology, Blakesley (2002) explained that **"**Devices like perspective by incongruity and exorcism by misnomer challenge pious ways of naming in the interest of forming alternative perspectives" (p. 93).

For Burke, drama is a "metaphor for analyzing human behavior" (Blakesley, 2002, p. 44). Burke and sociologist Erving Goffman shared a common interest in drama as a major form of human communication that offers rich terministic screens for dramatistic analysis (Burke, 1969) and invaluable opportunities for phenomenological and cognitive analysis of lived realities (Goffman, 1974). Both scholars viewed the theater as a powerful medium for understanding how individuals and societies assign meaning to observed experiences -- to the ambiguities and the apparent clarities of human everyday life. For Goffman and Burke, a grounding term is transformation. Burke viewed literary drama and Goffman viewed theatrical performance as lenses for making sense of how language and communication act to transform human perceptions, motives, and beliefs.[3]

Goffman (1974) argued that frames are devices that allow audience members to "locate, perceive, identify and label" occurrences of information (p. 21). Unlike other sociologists of his era, Goffman was not interested in explicating social organization or social structure – typical research considerations in sociology. Rather, Goffman was

interested in analyzing and explicating the structure of experiences that are reflected in the everyday lives of ordinary people in boundaried situations. He argued that, in the construction of meaning, everyday perceptions take priority over ontological structures in the world.[4] He was acutely aware of the power of television, radio, and print media to create message frames that informed or, more often, misinformed public audiences. Goffman situated his work in a very interesting across-the-disciplines lineage. He acknowledged an intellectual debt to William James (pragmatic phenomenology), Gregory Bateson (cognitive psychology and play theory) and Luigi Pirandello (theater of the absurd).[5]

A meticulous observer of details that shape human behavior and interactions, Goffman employed a phenomenological approach more akin to a novelist than a sociologist to document and analyze human thought, feeling, belief, and action within and across what he called "strips" of lived and observed activities, as those events were portrayed in print and broadcast news and in the theater of the absurd. He argued that frames are "any raw batch of occurrences (of whatever status in reality) that one wants to draw attention to as a starting point for analysis" (p. 10). Goffman was especially concerned with how information frames cause transformations of meaning in audiences. He argued that frames generate and determine "guided doings" in part due to keyings or transformations that frames undergo.

In his seminal work, *Frame Analysis*, Goffman (1974) provided a fascinating (and at times dizzying) phenomenological description of media frames and framing theory in an extended ethnographic reflection of primary frames and their successive alterations. He also described in great detail factors that can alter frames or change their emotional tone (their key). He grouped selected primary frameworks using phenomenological (not empirical) categories such as "astoundings, stunts, gaffes or muffings, the fortuitous or incidental, jokes" (p. 13). Such frames undergo keying or transcriptions, Goffman explained. Just as a musical piece is transformed when it is transposed to another key, so also message frames are transformed by the rhetorical intent of rhetors, message framers, or by rhetorical confusion or disputation of audiences, message receivers. As Goffman (1974) explained, the key is "a central concept in frame analysis … the set of conventions by which a given activity, one already meaningful in terms of some primary framework, is transformed into something patterned on this activity but seen by the participants to be something quite else. The process of transcription is called keying" (p. 45).

Goffman also was interested in the vulnerabilities of message frames. He pointed out that information frames can contain and convey various types of ruses, fabrications, cons, power plays, or other deceptions, thus confusing rather than clarifying motives and interpretations. He observed that fabrications can be playful and benign, e.g., surprise parties and benign practical jokes, or fabrications can deceive, exploit, or otherwise cause harm, e.g., political deceptions and stock swindles, etc. Usually such regroundings, as

Goffman (1974) called them are a combination of benign and malign intentions. For Goffman, theater was a special frame for understanding keying and transcriptions, in particular, the theater of the absurd. Influenced by the work of cognitive psychologist Gregory Bateson, Goffman (1955) argued that "the transformation power of play" (p. 43) is a vital form of keying in human communication and "one can speak of the play as a keying and the acting as a form of make believe" (p. 135). Goffman viewed theatrical performance as "playful unknowingness" and "benign fabrication" (p. 136) wherein "the audience is given the information it needs covertly so the fiction can be sustained that it has indeed entered into a world not its own" (p. 142). Goffman was especially impressed and transfixed by "the very remarkable capacity of viewers to engross themselves in a transcription that departs radically and systematically from an imaginable original" (p. 145). The current study will explore the notion of the transforming power of play by addressing the potential role of new media in creating hybrid pedagogies for next-stage interactive education in health communication and Nursing education.

Perhaps because they depict forms of dramatization, documentaries especially interested Goffman. He observed that video and audio documentary reports effectively key or transform the meaning of original artifacts, e.g., print records and other forms of evidence. According to Goffman, keying also occurs in contests, ceremonials, technical re-doings, and other forms of play and make believe that are depicted in contemporary

media. The notion that dramatizations are rhetorical places where actors and audiences meet in order to negotiate message framing and message reception is relevant for the current study of how Nursing students perceive and interpret the script and video for a dramatization about nurse-physician communication. There is another relevant corollary. Goffman's explication of primary and secondary frames echoes the modularity that Lev Manovich (2002) equated with new media creations. Goffman suggested that frames exist within frames as far as one's phenomenological, sociological, and rhetorical analyses might extend. Manovich argued that new media products are inherently modular and scalable, i.e., they exist within, and draw their agency from, preceding and successive information modules. Moreover, the software that makes new media possible demonstrates modularity in the way codes are embedded in other codes.

The ability to operationalize cultural and phenomenological concepts articulated by Burke and Goffman is vital to undertaking the kind of mixed methods empirical research in rhetoric and communication that is reported in this dissertation. To effect that transition in a transdisciplinary way, this dissertation recognizes additional scholarship on framing.

B. Other Communication Theories That Inform This Study

Robert Entman (1993) argued for a new paradigm in communication studies as a way to unite disparate and often competing research views. Entman asserted that "the concept of framing consistently offers a way to describe the power of communicating texts" (p. 51). According to Entman, framing selects and privileges information that is relevant for communicators and their audiences. Moreover, message frames in print and broadcast media generate salience by drawing attention to information that is "noticeable, meaningful, or memorable to audiences" (p. 53). As Entman explained, salience allows individuals to share common perceptions of "existing schemata in a receiver's belief systems" (p. 53). Thus, salience imbues information frames with significant cognitive agency, reminiscent of Burke's arguments about the agency of terministic screens and Goffman's arguments regarding the power of message frames to effect transformations in attitudes and beliefs.

Echoing Entman, Dietram Scheufele (1999) argued that framing as a theory and methodology can help to provide a common ground for communications research. But to do that, Scheufele asserted, framing research must overcome "theoretical and empirical vagueness" (p. 103) that restricts the ability to (a) design comparable research protocols regarding framing in political communications and (b) interpret research results in valid and reliable ways. Scheufele asserted that media frames that are most available to an

audience tend to determine how issues are perceived and interpreted. In that sense, media frames help to construct social and cultural knowledge. Scheufele's work is a major step toward operationalizing framing theory in order to explore how culture is constructed through the media's framing of political and social issues. According to Scheufele (1999), media frames and audience frames can function as either independent or dependent variables, thus establishing "an interactive model of construction of reality [with] important implications for conceptualizing framing as a theory of media effects" (p. 106). Scheufele's willingness to switch the lens, so to speak, by allowing a frame to function as either type of variable in an empirical study is reminiscent of Burke's use of the pentad, a type of multiple lens for attributing and speculating about the motives of literary characters. The need to consider issues from another perspective also is strongly embedded in Goffman's views about message framing, keying, transcription, and transformation.

Also pertinent to the current research, Robin Nabi (2003) argued that emotions can have powerful framing effects. Although emotions generated by humor (Bennett, 2003) can create positive framing effects, the emotions of fear and anger can impair message reception and undermine potential consensus and collaboration, as Nabi (2003) has demonstrated. In particular, her research suggests that the emotions of fear and anger can shape message reception and audience interpretation as much as, and perhaps more than,

the language and images used to frame information. Nabi's insights have particular relevance for examining emotional salience in health communications. Often emotion is an essential yet under examined factor in clinician-patient and clinician-clinician discourse, especially when diagnostic or other types of cognitive content dominate the communication exchange. As Nabi explained, "once evoked, emotions dominate people's perspectives and drive subsequent cognitive efforts, including message processing and decision making" (p. 242).

Also relevant for the current research, Shanto Iyengar (1991) conducted a mixed methods analysis of how news reports framed political controversies and audience interpretations in the 1980s with regard to crime, terrorism, poverty, unemployment, racial equality, and the Iran-Contra affair. Iyengar concluded that message framing in TV news reports determines how, and to whom, TV viewers will assign responsibility for the events reported. Iyengar found that viewers of episodic news reports tended to assign responsibility for criminal or other destructive acts to individuals rather than to society or the government, thus potentially weakening the public's ability to discern and to hold elected officials accountable. On the other hand, viewers of thematic stories – documentary reports – tended to attribute responsibility to societal factors that transcend or mitigate individual responsibility. Iyengar concluded that "These effects make elected officials and public institutions less accountable to the American public" (p. 5).

He explained that his work was "… derived from attribution theory, which suggests that people typically exaggerate the role of individuals' motives and intentions and simultaneously discount the role of contextual factors when attributing responsibility for individuals' actions, a tendency that psychologists have dubbed 'the fundamental attribution error'" (p. 33). In suggesting that accountability is selected or deflected depending on how information is framed for public audiences, Iyengar echoed Entman's arguments about salience frames, Goffman's arguments about message keying and transcriptions, and Burke's arguments about the filtering effects of terministic language. Moreover, Iyengar's use of quantitative and qualitative (mixed) methods is a model for potential adaptation in new media framing research. Also instructive is Iyengar's discussion of how to minimize demand characteristics when media content are the study intervention, i.e., how to minimize investigator cues that could influence the responses of study participants.

Generally recognized as the originators of systematic analyses in message framing, Daniel Kahneman and Amos Tversky (1984) argued that the language used to frame options for decision making determine whether people are risk aversive or risk seeking. Their analyses were based on decisions to maximize or protect wealth, which in turn were based on Daniel Bernouilli's 18th century argument "in which he attempted to explain why people are generally averse to risk and why risk aversion decreases with increasing wealth … a large majority of people prefer the sure thing over the gamble,

although the gamble has higher (mathematical) expectation" (p. 341). Kahneman and Tversky found that when wealth is the main metric, individuals will seek to minimize risk (to be risk aversive) if they perceive the gamble or venture is more likely to result in harm rather than benefit. Kahneman and Tversky (1984) concluded that "In their stubborn appeal, framing effects resemble perceptual illusions rather than computational errors" (p. 343). Their findings suggested new ways to approach the study of message framing and message reception in inter-professional health communication. What happens, for example, if health replaces wealth as the main metric in a research protocol? Suppose an audience is presented with the option to choose a new experimental intervention, and the option is framed in terms of lives that will be lost, will people opt for risk aversion? If the same option is framed in terms of lives that could be saved, will people opt for risk seeking? What happens if team building replaces wealth as the main metric, e.g., team building in nurse-physician small team collaboration in the neonatal intensive care unit (NICU)? Although such questions may appear beyond the scope of this investigation, they clearly warrant further consideration.

Also pertinent to the current research, Zhongdang Pan and Gerald M. Kosicki (2001) asserted that framing theory is largely a cognitive process that reflects political and cultural paradigms, and "framing effects result from the salient attributes of a media message changing the applicability of particular thoughts, resulting in their activation and use in evaluations" (p. 38). Pan and Kosicki expanded and problematized the concept of

framing by focusing on how talk-intensive TV shows are shaping political discourse and policy in the United States, thus creating new relationships among political actors and their public audiences—relationships in which the roles of actor and participants are often shared or reversed. Pan and Kosicki explained that "our concern is how framing, by activating the conventions and tacit rules of interpretation and text construction shared by participants, differentiates categories of actors, types of actions and kinds of action settings" (p. 42). Talk shows often frame and influence public discourse about what American democracy is or should be. Such framing can manipulate and reinvent political performances and disputes. As Pan and Kosicki (2001) explained: "Public deliberation, therefore, is not a harmonious process but an ideological contest and political struggle … framing is an essential part of public deliberation" (p. 36). The observations of Pan and Kosicki about how talk show framing can shape policy discourse have implications for analyzing health policy and related discursive practices in web-based communications.

As this review of salient prior work in framing research suggests, message frames have powerful and measurable effects on public audiences. How information is framed can often determine what audiences and societies perceive, believe, and act upon. Contemporary framing research also suggests a tendency for framing theorists to seek theoretical consolidation even as they uncover and chart new experimental terrain. Communications scholars, including researchers in health communication, may continue to seek a holistic paradigm for framing theory as Entman advocated, but the inherent

nature of new media may mitigate against such a goal. New media creations tend to diversify as they remediate, that is, as they repurpose and reconstruct message frames and related content from old media. Nonetheless, the ongoing effort to find a holistic paradigm for message framing in the digital era can enrich and expand framing theory. Thus, framing research across the disciplines may continue to reflect a paradigm-in-shift.

C. Other Rhetorical Perspectives That Inform This Work: Orality Versus Literacy

Linguist and rhetorician Walter Ong (1988) argued for the primacy of orality as a vehicle for cultural, societal, and individual knowledge-making and knowledge-sharing. For Ong, orality complements and supplements the power of literacy to determine and shape how individuals, societies, and cultures communicate and preserve knowledge. Orality refers to spoken (narrated) discourse that has little or no reliance upon, or reference to, literacy, that is, to knowledge gained from written and printed texts. Ong argued that the epistemic characteristics of orality are most evident in preliterate cultures. Salient examples include the oral narratives of ancient Western cultures, e.g., preliterate Greece and preliterate Israel and the oral traditions of contemporary cultures that primarily rely upon spoken rather than written texts to communicate individual, tribal, or societal wisdom, e.g., many Native American cultures in North and South America, as well as indigenous cultures in Africa and Asia. Human communication in oral cultures typically prioritizes oral storytelling, song, spoken poetry, spoken wisdom narratives (proverbs and

cultural myths) and other forms of associative (not syllogistic) thinking that characterize and reflect oral traditions, versus codified written and printed laws that reflect literary traditions.

For Ong, sound and oral language are primary venues for rhetoric and communication that biologically and culturally precede written communication. Put another way, people in primarily oral cultures discern and know things that individuals in print cultures miss (and vice versa). Thus, orality and literacy might be considered cultural and biological screens for the framing and communication of different forms of cultural knowledge. Orality and literacy frame cultural information in uniquely different and often complementary ways. Ong noted that the most significant legacy of the shift from orality to literacy in Western culture is reflected in literacy's ongoing fascination and indebtedness to narratives. Ong suggested that spoken narratives in theater and other performance arts, and some written narratives, e.g., epic poetry, may allow contemporary readers and viewers to imagine (with considerable difficulty) the significance and agency that spoken words conveyed to ancient peoples who had no reliance upon written language and little or no reliance upon other written symbols. Toward that end, Ong (1988) argued that orality as a form of human communication is rooted in a "close reference to the human lifeworld" (p. 42) and "Spoken utterance is addressed by a real, living person to another real, living person" (p. 101).

The implication is that spoken words in certain cultures can equal real action, not "simply" symbolic action. Because the orality of spoken discourse is the embodied activity of living persons expressing and exchanging ideas with other living persons, Ong argued that spoken discourse is often more persuasive than written discourse. Thus, regarding appeals to ethos, the immediacy of spoken words can trump the potential verifiability and reviewability of written words. In that sense, Ong's views regarding oral language contrasted with those of Burke, who believed that all language is (only) symbolic action. As a salient example of oral language that embodies and communicates experiential as well as symbolic action, Ong (1988) noted the complex meaning of the ancient Semitic word *dabar*. "For anyone who has a sense of what words are in a primary oral culture, or a culture not far removed from primary orality," Ong wrote, "it is not surprising that the Hebrew term *dabar* means 'word' and 'event" (p. 32).

That sense of spoken language as both experiential and symbolic action has implications for the study of inter professional communication in the healthcare workplace. Much clinician-patient and clinician-clinician communication embodies and reflects oral rhetoric and thus requires an understanding of the interplay between spoken and gestural agency, i.e., spoken and gestural message framing and message reception. In the discursive practices of inter professional patient care -- where the focus of discourse is typically on diagnosis, treatment, prognosis, patient care, patient compliance, clinician-patient trust, and patient safety -- spoken words often convey greater weight and

meaning, greater ethos, than written words. Spoken exchanges, e.g., can personalize information that is charted or conveyed electronically, and in the process, affirm, explain, clarify, or confuse and undercut written records (the written artifacts of clinical documentation). On the other hand, written language can objectify knowledge in ways that, ideally, can help interlocutors and audiences to use that printed knowledge for meaning-making and problem-solving tasks.

As Ong (1988) explained, "Writing fosters abstractions that disengage knowledge from the arena where human beings struggle with one another … By keeping knowledge embedded in the human lifeworld, orality situates knowledge within a context of struggle" (p. 43). In that sense, Ong and Burke agreed about the power of language to induce action in others, with perhaps less cynicism than Goffman, whose scholarship was informed to a large extent by information frames that often act as benign or malign fabrications, the discursive practices of honest or dishonest power plays. Ong (1988) argued that "Spoken words are always modifications of a total situation which is more than verbal" (p. 101) whereas "Print encourages a sense of closure, a sense that what is found in a text has been finalized, has reached a state of completion. This sense affects literary creations and it affects analytic philosophical or scientific work" (p. 129)

Oral and written knowledge (the generative riches of orality and literacy) can act exponentially to expand, complicate, and problematize human communication, thus creating new opportunities for cultural and empirical research. For example, Ong's insights regarding the agency of orality have significant implications for the design, development, and assessment of new media narratives in the humanities and the health sciences. Such narratives might be considered artifacts of an electronically mediated culture of spoken situatedness, despite the fact that new media texts are often typed into keyboards for transmission via laptops, tablets, mobile phones, and other web-based devices. In such digital ecologies, images accompanied by spoken words may convey greater meaning and ethos than images accompanied by written words. In that sense, Ong's attention to the agency of spoken versus written communication echoes Goffman's arguments about the role of broadcast and print news in framing the meaning of everyday lived experiences for contemporary audiences, and Burke's arguments about the decipherability of ambiguous motives in literary characters through dramatistic analysis. Indeed, the immediacy and forcefulness of spoken words versus the bounded limitations of written text accounts, in part, for the discursive tension, the failure to achieve identification and consubstantiation, that is depicted in the YouTube dramatization, *Of Lions and Lambs*. That video dramatization constitutes the treatment-intervention for the empirical study described in this dissertation.

D. Visual Theories Relevant to This Study: New Media, Visual Information Design

Carol David and Anne Richards (2008) argued that seeing precedes language as a form of knowing, but language is needed to bring visual knowledge to consciousness in order to explore, clarify, and problematize what consciousness perceives. David and Richards urged teachers of composition and communication to incorporate visual thinking and learning into class assignments in order to engage contemporary students, because those learners typically are immersed in visual messages, many of them from new media. In tandem with that argument, Nancy Allen (2008) asserted that visual rhetoric is, and must be, a vital part of writing courses, but undergraduate students often need assistance to learn and appreciate the power of traditional (Aristotelian) rhetorical concepts like logos, pathos, and ethos as springboards to explicate the rhetoric embodied in images. Allen also argued that images draw most of their persuasive power because they appeal to the emotions (pathos). Seen in a Burkean light, images act rhetorically as terministic screens to select or deflect information that, in turn, can contribute to, or obstruct, consensus and cooperation in designated audiences.

Also instructive for this study, Ann Marie Seward Barry (1997) asserted that images can be used to confuse, mislead, or otherwise manipulate audiences and thus contaminate human communication. Despite those unethical uses of images, visualizations hold

enormous potential to contribute to human communication that supports or otherwise advances what society might recognize as the common good. As Barry argued, visualizations can tap into and activate pre-cognitive emotional intelligence. Thus, images can be a vital part of preliterate knowing, not simply an adjunct to textual reasoning. That epistemic agency is reflected, for example, in video images that convey contextual cues about the actions and motivations of interlocutors, an agency that is pertinent to the current empirical study.

Likewise relevant to this work are the observations of Margaret Helmers and Charles Hill who investigated how images act to persuade audiences. Helmers and Hill (2004) argued that "We learn who we are as private individual and public citizens by seeing ourselves reflected in images, and we learn who we can become by transporting ourselves into images" (p. 1). That meta-view reflects insights from Barbara Maria Stafford (1996), who asserted that visual thinking merits at least equal status with textual thinking in interdisciplinary research. Stafford argued that:

> It seems infeasible, either intellectually or financially, to sustain multiple, linear specializations in art, craft, graphic, industrial, film, video or media production and their separate histories. Instead, we need to forge an imaging field focused on transdisciplinary *problems* to which we bring a distinctive, irreducible, and highly visual expertise. (p. 10).

Stafford's observations about the agency of images to create a visual arena for transdisciplinary rhetorical analyses are relevant to this study of the efficacy of print versus video media to communicate exigencies, conflicts, ambiguities, and implications in the dramatization, *Of Lions and Lambs*.

Also pertinent to this study is the work of graphics art scholar and practitioner, Edward Tufte, who argued that expertly crafted visualizations are complex repositories of meaning that reflect the combined agency of words and images. Tufte (2006) noted that well designed art, illustrations, maps, and other graphics often provide layered assemblages of meaning that help viewers explore and learn from the ambiguities of human experience; he suggested that such visuals communicate "Ambiguity in Action" (p. 64). For Tufte, well designed charts, graphs, diagrams, and other visualizations elucidate the "*specific character of relationships* among verbal elements" (p. 68). One is reminded of Burke's argument that language is symbolic action (and by implication, images are symbolic action) that can reveal and explicate meanings embedded in the apparent clarities and especially the problematic ambiguities of human experience. Tufte advocated "intense seeing" (p. 105) in science and art, i.e., cultivating an informed perception of how words and images construct narratives that help to explain complex phenomena while also appealing to a viewer's sense of wonder. Tufte's arguments about

the aesthetics of detailed technical and scientific visualizations and his insistence on cultivating a rhetoric of seeing have implications for the conveyance of visual data in health communication. Such health visualizations can lead to insights audiences might not otherwise gain.

Also instructive is the theoretical work of Jay Bolter and Richard Grusin (2000) regarding the complex nature and effects of new media. In their analyses of how new media remediate the language and visualizations of earlier traditional media, Bolter and Grusin suggested what might be considered a novel Burkean extension, namely, that new media are digital terministic screens enervated by cybernetic as well as symbolic action. Bolter and Grusin argued that many new media creations communicate and fulfill an audience's desire for three synergistic agencies: immediacy, hypermediacy, and remediation. According to Bolter and Grusin (2000), immediacy is achieved "by ignoring or denying the presence of the medium and the act of mediation" thus placing "the viewer in the same space as the objects viewed" (p. 11).

As a result, "the transparent presentation of the real and the enjoyment of the opacity of media themselves" [are] "twin preoccupations of contemporary media" (p. 21). Remediation involves re-seeing, re-purposing, and re-mixing older texts and images so they convey new meanings for contemporary audiences. Hyper mediation involves the rearrangement of text, graphics, video, sound, and other digital artifacts in multiple online

windows, thus creating a synchronous existence in cyberspace for those artifacts and for the viewers who enter and engage with those cybernetic realities (or hyper realities).

For Bolter and Grusin, moving interactively through three dimensional virtual spaces constitutes the agency and wonder appeal of new media. That web based agency has a long and respected lineage in the art of various cultures. As just one example, Bolter and Grusin (2000) observed that Baroque cabinets created in 16th and 17th centuries allowed European viewers to experience the sense of entering, or at least perceiving, three dimensional spaces, thus creating the perception of a unique if illusory presence. Those same perceptual illusions are achievable today with digital media where, typically, two dimensional texts, icons, and hyperlinks "open onto" three dimensional spaces embodied and conveyed by video, animation, or film. Interactivity and wonder appeal can increase significantly when expertly crafted, new media creations immerse viewers in three dimensional simulations. Such web-based media are related to, but a technological generation removed from, expertly crafted two dimensional charts, graphs, and diagrams that simulate three dimensional spaces through perspective, foregrounding, color selection, and other design strategies. Transitions from two-to-three dimensional spaces almost always stimulate the imagination, Bolter and Grusin asserted**.**

From a Burkean perspective, new media are rhetorical electronic platforms for exploring and harnessing ambiguities in the effort to achieve identification and consubstantiation among individuals and groups with often competing interests and needs. Those rhetorical possibilities are explored later in this dissertation. Addendum C summarizes a new hybrid course in collaborative inter-professional health education. The proposed course would combine traditional and new media assignments to engage and motivate learners across clinical disciplines.

Seen from the perspective of communication studies, the persuasive agency of new media implies a fundamental question about framing for salience, for aesthetic appeal, and for wonder appeal. Thus, communications scholars, including those in health communication, may have something to add to the research conversation about the persuasive power of new media images. One could argue that new media creations are electronic forums for studying framing effects on contemporary audiences. Such new media framing research might draw upon the work of communications scholar Dietram Scheufele (1999) as well as the work of various new media scholars (Waldrip-Frinn, 2003).

For example, researchers might ask: How might the words, images, and gestures that comprise message frames in new media compositions shape what audiences and readers

perceive, believe, and decide? How would a remediated new media version of the video *Of Lions and Lambs* -- perhaps rendered as an interactive graphic novel, a multimedia eBook, or a learning game -- affect Nursing students' perceptions and attitudes regarding effective versus ineffective nurse-physician communication in acute care settings? Might a remediated version of that video, distributed as a mobile app, suggest new solutions to communication challenges in the clinical workplace? In Ch. 5 of this dissertation, the interactive appeal, agency, and ethos of new media creations are addressed further, with a view toward creating new instructional platforms, new hybrid digital pedagogies, for courses in the health sciences, health communication, and healthcare rhetoric and composition.

E. Nursing Perspectives That Inform This Study: The SBAR Communication Tool (Situation, Background, Assessment, and Recommendation)

Nurse-educator Kathleen Bartholomew (2010) has provided many practical recommendations for improving nurse-physician communication in the clinical workplace. In particular, Bartholomew called upon nurses to understand and implement their key role as stakeholders in the work of patient care. According to Bartholomew, communication breakdowns among nurses and physicians are opportunities to pinpoint and resolve communication issues that pose a risk to patient care and patient safety.

Bartholomew has offered practical "how to" recommendations for improving inter-professional communication in patient care, a main concern of the Institute of Medicine following their report on factors that obstruct patient safety in health facilities (Kohn, Corrigan, Donaldson, & the Committee on Quality of HealthCare, 2000). In the wake of that report, critical care clinicians have been encouraged to use SBAR protocols to clarify and implement effective inter-clinician communication (Kaiser Permanente, 2010). Bartholomew (2010) favored the implementation of the SBAR communication tool to streamline and improve nurse-physician communication in order to enhance patient care. Originally developed by the U.S. Navy for staff communications in nuclear submarines, and later adopted by the aviation industry, the SBAR tool communicates essential, time-sensitive data during a potential or actual crisis. In acute and critical patient care, e.g., the SBAR communication tool focuses nurse-physician attention on salient aspects of patient status. To ensure the exchange of clear, precise, and verifiable information, clinicians provide information in response to the following screens:

Situation: What is going on with the patient?

Background: What is the clinical background or context?

Assessment: What do I think the problem is?

Recommendation: What would I do to correct the problem?

From a rhetorical perspective, the SBAR communication tool is a terministic screen that conveys salient information about patient status while also deflecting other information that could enhance patient care but also could overtax the lines of communication during a fast breaking crisis. Put another way, the SBAR tool allows clinicians to triage information as they triage patient care (Haig, Sutton, & Whittington, 2006). From the perspective of communication studies, just as news frames can determine public consumption and interpretation of reported events, so also health communication frames like the SBAR communication tool can determine inter-professional understanding of a patient's evolving status. Bartholomew's arguments about the need to teach and learn strategies that enhance nurse-physician communication echo findings reported by Robinson, Gorman, Slimmer, and Yudkowsky (2010). Those researchers from the University of Illinois at Chicago used focus group methodology to identify attitudes and behaviors that contributed to, or obstructed, effective nurse-physician communication in their teaching hospital, as perceived by a sample of nurses and physicians in that health facility. Nine nurses and nine physicians (ten women and eight men) participated in the focus group interviews. Study participants suggested that the following factors contributed to effective nurse-physician communication in their health facility: "clarity and precision of message that relies on verification, collaborative problem solving, calm and supportive demeanor under stress, maintenance of mutual respect, and authentic understanding of the unique role" (p. 206).

Study participants also reported factors that obstructed effective inter-professional clinical communication in their teaching hospital. According to Robinson and colleagues (2010), those negative factors include “making someone less than, dependence on electronic systems, and linguistic and cultural barriers” (p. 209). In that health communication study, “dependence on electronic systems” referred to over reliance on technology at the expense of in-person communication.

In another study conducted at the University of Exeter in England, Rose (2011) used focus group methodology to identify and assess attitudes and behaviors that enhanced or diminished collaboration among 54 British clinicians from different specialties who cared for, or who were otherwise responsible for, the medical and psychosocial wellbeing of children and teenagers. Study participants, organized into eight teams, included professionals from medicine, nursing, psychology, psychotherapy, social work, speech therapy, occupational therapy, education, law enforcement, and foster care. The study focused, in large part, on whether and how clinicians negotiated consensus and common goals when disciplinary training, expectations, protocols, and priorities lead to disagreements, contradictions, or disputes involving issues of “identity, power, territory, and expertise” (p. 151).

As Rose (2011) explained:

> Participants described the importance of holding a common goal and shared agenda ... there seemed to be an implied assumption that having a shared focus was enough to iron out problems … However, the very nature of the dilemma may mean that agreeing on and committing to common goals and strategies might be problematic … While the nature of dilemmas means there may not be an obvious and straightforward solution that is best for all concerned, holding and enacting a collective preference was described as a desirable outcome or resolution. (pp. 155-156)

Rose concluded that, to enhance pediatric and adolescent care, specialists in children's services must be willing to sacrifice their usual professional autonomy and authority in order to support team strategy and goals that are directed by clinicians from another discipline. From the perspective of healthcare rhetoric and communication, Rose's study, and the research by Robinson, Gorman, Slimmer, and Yudkowsky, illustrate the central role of language in framing or fracturing the potential for rhetorical consensus among interlocutors and collaborators – or as seen from a rhetorical perspective, the potential for Burkean identification and consubstantiation.

The healthcare studies mentioned above have implications for future research in message framing and message reception. By bracketing but not disregarding other potential causes of disagreement or dispute rooted in ethnicity, race, gender, educational background, personality distinctions, or other demographic and psychosocial factors, health communication researchers can begin to clarify the central role that language -- discursive action -- plays in creating the context for productive social interactions in any particular exigency, e.g., the diverse and complicated exigencies that characterize patient care and patient safety. Such research may help to elucidate the effects of message frames on networks of thought, communication, and action that converge, through human communication, to generate health benefits for individuals, communities, and societies.

F. Rhetoric and Composition Perspectives That Inform This Study

The Emerging Research Relationship Between Inter-Professional Health Communication and WAC/WID (Writing Across the Curriculum and Writing In the Disciplines).

The current empirical study reflects an interdisciplinary fertilization of research goals and methods across the disciplines of health communication and rhetoric and composition. Prior research in rhetoric and composition provides a diverse theoretical context for testing the premise that multimodal health communication texts function as terministic

screens that select and deflect salient information for professional and public audiences. Reciprocally, health communication studies in message framing and message reception can be a productive springboard for research in rhetoric and composition in the health disciplines.

As suggested by a selective review of published research in rhetoric and composition, WAC/WID assignments are an effective way for students in the humanities and the sciences to explore the clarities and ambiguities of human experience and communication. Well-crafted writing-to-learn and learning-to-write assignments can enliven reading and writing activities, improve learning, and enhance knowledge-making for students across the curriculum (Bazerman, 2010, 2004; Meltzer, 2009; Lunsford, 2006; Young, 2006; Bazerman et. al., 2005; Lauer, 2004; Leander & Prior, 2004; Young, Connor-Greene, Waldvogel, & Paul, 2003; Anson, 2002; George & Trimbur, 1999; Berlin, 1988; Young & Fulwiler, 1986; Emig, 1977). Effective writing assignments can situate learners in the existential dynamics of hypothetical or lived scenarios, thus increasing the likelihood that students will discover and implement meaningful problem solving strategies that include, but are not limited to, explicating texts and interpreting and applying them to real life exigencies. Here "texts" refers to (a) traditional print texts, (b) art, illustrations, charts, graphs, diagrams, and other visualizations conveyed in books, magazines and other conventional print documents, and (c) new media creations that include websites, podcasts, films, videos, or other web-mediated artifacts.

Multimodal writing and communication assignments can help students to learn textual and visual literacies and to negotiate the challenges and potential benefits of collaborative work (Lunsford & Ede, 2012; Yancey, 2009, 2002). Contemporary writing instructors are advised to design and assign multimedia assignments for students who, typically, are immersed outside the classroom in new media and other web based communications (Allen, 2008; Taylor, 2008; Reiss, Selfe, & Young, 2008; Selfe, 2007, 2004; Hocks, 2003). Research in multimodal rhetoric and composition can elucidate the epistemic and generative value of writing and communication within and across disciplines. (Gee & Hayes, 2011; Reiss, Selfe & Young, 2008; Taylor, 2008; Young, 2006). Reciprocally, insights from cultural and visual studies can inform and guide rhetorical research across the disciplines (Stafford, 2007, 1996; Geisen & Robinson, 2007; Blakesley, 2003; Hawk, 2003; Kress & Van Leeuwen, 2001; Faigley, 1999; Prior, 1998).

Writing assignments can be forums for teaching and learning cognitive, problem solving skills (Kellogg, 2008; Flowers & Hayes, 1981, 1980) and for learning about the rhetorical role of persuasion in the composition of scientific documents for professional and public audiences (Penrose & Katz, 2010). WAC/WID strategies have been used effectively in client based courses, thus providing service learning benefits to students and communities (Taylor & Young, 2007; Taylor, 2006). The community-oriented focus of service learning courses can inform the rationale and design of WAC/WID assignments in health

communication and health science courses. Yet, despite the benefits summarized above, WAC/WID theorists and practitioners should expect to negotiate institutional challenges and potential obstacles when attempting to implement a writing program across disciplines (Palmquist, Kiefer, & Zimmerman, 2008; Billings et. al., 2005; Young, 2003).

Digital Pedagogies and Clinical Education

From the perspective of health communication, writing is a primary way to communicate with professional and public audiences about topics that influence the care and wellbeing of patients, families, and communities (Groopman, 2007; Duggan, Bradshaw, Carroll & Rattigan, 2009; Barbour, 1995). Writing assignments that focus on professional issues in healthcare can prepare clinical students to educate patients, families, and communities about public health issues (Heifferon, 2005). Discipline specific writing assignments can enhance learning for students in Nursing (Rhome, McLaughlin, Malloy, Maccabe, & Hendrix, 2004), the biological sciences (Quitadamo & Kurtz, 2007; Carter, 2007; Carter, Ferzli & Wiebe, 2007; Carpenter & Krest, 2001), and other scientific disciplines (Kelly, Bazerman, Skukauskaite, & Prothero, 2010). Likewise, research in health communication can begin to clarify the benefits of multimodal teaching and learning strategies in the health and life sciences, e.g., the anatomical sciences (Thomas, Denham, & Dinolfo, 2011).

Expertly designed WAC/WID assignments can potentiate and problematize rhetorical analyses within and across disciplines and modalities, thus contributing to, and building upon, prior rhetorical studies (Gee & Hayes, 2011; Fahnestock & Secor, 2002). Rhetorical analyses of the claims, arguments, and appeals that occur in health texts, hypertexts, podcasts, videos, and other communications can raise students' awareness of the diverse agency of language in the health disciplines (Segal, 2009; Barton & Marback, 2008; Heifferon, 2008; Barton, 2002; Welch, 2000). As suggested earlier, such rhetorical analyses can inform, and be informed by, empirical studies of framing by communication scholars, resulting in new research regarding the framing effects of multimedia health compositions, e.g., the print and video narratives that constituted the interventions for the current empirical study.

G. *Of Lions and Lambs*[6]

A Representative Narrative in Inter-professional Health Communication

The study described in the following chapters summarizes and interprets the perceptions of a convenience sample of Nursing majors after viewing the video, *Of Lions and Lambs,* or reading the transcript of the dramatization. Created and performed by nurse-educator Kathleen Bartholomew and physician-educator Joseph Bujak (2011), *Of Lions and Lambs* depicts a hypothetical breakdown in nurse-physician communication during the acute care of a patient.[7]

From the perspective of message framing in health communication, *Of Lions and Lambs* juxtaposes two incongruous and competing perspectives—those of the nurse and the physician. Thus, in the scenarios, storytelling is the springboard to teach and learn about factors that contribute to, or obstruct, effective nurse-physician communication in the clinical workplace.

As Ong (1988) argued, spoken words conveyed in stories and other oral communication often convey greater ethos than written words. Spoken words can affirm, confuse, or otherwise undercut written words. Ong's observations seem especially applicable in health communications, where the focus of inter-professional discourse is often on the didactic processes involved in diagnosis, treatment, and prognosis. As Blakesley (2002) explained, Burke's focus on language as symbolic action highlighted the rhetorical value and role of anecdotal story telling "which can function as a point of departure for the analysis and evaluation of the scope and circumference of the terms people choose to attribute motives" (p. 13). As Goffman (1974) argued, message frames are often blurred by competing perspectives and by the unfolding of expected and unexpected events that contradict expectations about how messages should be interpreted or acted upon. Those rhetorical perspectives help to establish the context for the current empirical study.

H. Research Predictions

This study expects to find that

(1) Nursing students who read the print scenario for *Of Lions and Lambs* will report more factual content regarding patient status and

(2) Nursing students who viewed the video scenario for *Of Lions and Lambs* will report more contextual information regarding why the nurse-physician communication was ineffective and counterproductive.

If those results occur, the findings may have implications for the design of new web based writing and viewing assignments to teach effective inter-professional health communication.

Endnotes

1. Burke argued that

> We *must* use terministic screens, since we can't say anything without the use of terms; whatever terms we use, they necessarily constitute a corresponding kind of screen; and any such screen necessarily directs the attention to one field rather than another. Within that field there can be different screens, each with its ways of directing the attention and shaping the range of observations implicit in the given terminology. All terminologies must implicitly embody choices between the principle of continuity and the principle of discontinuity. (Quoted in Bizzell & Herzberg, 2001, p. 1344)

2. Kenneth Burke's pentad includes the following categories for combination into ratios: Act, Scene, Agent, Agency, Purpose (and Attitude which Burke added late in life to the pentad). The reshuffling of respective ratios allows readers and viewers to attribute and analyze how language acts symbolically to attribute or obfuscate motives in literary acts, scenes, and characters. The pentad allows us to analyze how terministic screens enhance or suppress identification and consubstantiality. As David Blakesley (2002) explained:

> Dramatism helps us understand the resources of ambiguity that make identification possible. It also helps us study identification's counterpart, division, as a dialectic between competing and cooperating forces. For Burke, human relations should be guided by the fullest understanding possible of the basis of our disagreements, our wars of words (logomachy). (p. 42)

In his analysis of Burkean thought regarding terminstic screens, Philip Stob (2008) argued that Burke's conception of the dramatistic pentad as a practical way of analyzing rhetorical motives and Burke's understanding of terministic screens reflect some of the cognitive and experiential perspectives of William James. Put another way, terministic screens can shape the perception of reality in pragmatic ways that James (1997) suggested.

3. The work of Kenneth Burke and Erving Goffman reflects a neo-structuralist approach to human communication. Underlying their extensive work is the notion that human language and communication result from psychological and cognitive structures that are central to human existence, yet often obscure, and thus need explication and analysis.

4. Erving Goffman asserted that he was not a traditional sociologist. Rather, he sought to explicate how humans create and use information frames to interpret everyday events. Goffman explained that his seminal work, *Frame Analysis*, was "about the organization of experience—something that an individual actor can take into his mind—and not the organization of society … I personally hold society to be first in every way and any individual's current involvements to be second; this report deals only with matters that are second" (p. 13). Consistent with his observations about the power of frames to effect message keyings (transformations), Goffman often undercut his own certainties by insisting that others may interpret his findings and conclusions differently.

5. One might also trace the origins of Goffman's perspectives on frame analysis to Aristotle, in particular, Aristotle's taxonomies of plants, animals, metaphysics, and other categorizations as the basis for philosophizing about their meaning for humans and for human societies.

6. *Of Lions and Lambs* is available online at http://www.youtube.com/watch?v=SyFArqgenzU.

7. In this hypothetical scenario, a female nurse phones a male physician at 2 am regarding a worrisome lab value for a hospitalized patient. The physician and nurse have worked for the hospital for some years, but they are not on a first name basis. The nurse is unaware that nurses from previous shifts had phoned the doctor more than once regarding the patient's changing lab value for the metabolite, creatinine, a marker of kidney function. The patient's chart includes no indication of physician-notification during those previous phone calls. Thus, the first communication issue that surfaces in the scenario is the charting omission. Ironically, although the lab value is worrisome, the patient's condition appears to be improving. The physician is irate at being awakened for a matter he had previously addressed. He verbally abuses the nurse and accuses her of incompetency and poor clinical training. Thus, the second communication issue that emerges in the scenario involves the physician's demeaning response. That exchange leads to a subsequent communication breakdown some days later between the same physician and nurse, and that subsequent breakdown ultimately impairs the patient's care and safety.

III. METHODS

Subject Recruitment and Sample Size

Subject recruitment occurred in two sections of a Spring 2011 course in science writing and communication (English 315) for undergraduates in the Clemson University School of Nursing. Study participants included traditional undergraduate Nursing students and non-traditional undergraduate Nursing students in Clemson's R.N. to B.S. Program. Initially, 33 Nursing students enrolled in the study. Sample sizes for survey responses were as follows:

- 33 students responded to the pre-treatment Likert survey. (Table 1). N = 33.
- 28 students responded to the post-treatment Likert survey. (Table 1). N = 28.
- 12 students responded to the post-treatment qualitative survey for the print scenario. (Table 2). N = 12.
- 12 students responded to the post-treatment qualitative survey for the video scenario. (Table 2). N = 12.
- 27 students responded to the post-treatment qualitative survey for the assigned journal article on nurse-physician communication. (Table 3). N = 27.
- 25 students responded to the post-treatment qualitative survey for the journal article on team building strategies to prevent lateral violence. (Table 3). N = 25.

Description of Treatment Interventions

Two treatment interventions were designed to assess the efficacy of print versus video to teach effective versus ineffective nurse-physician communication. Each intervention involved the dramatization, *Of Lions and Lambs* (Bartholomew & Bujak, 2011)

a. Print scenario recipients: Group 1 read the transcript of the video, *Of Lions and Lambs,* but did not view the video at the time of the study.
b. Video scenario recipients: Group 2 viewed the video, *Of Lions and Lambs*, but did not read the transcript at the time of the study.

Each study group included both traditional and non-traditional Nursing students. During the same week in March 2011, Group 1 read the transcript and Group 2 viewed the video.

Summary of Survey Tools and Data Collection

Quantitative Arm of the Study

In March 2011, both study groups provided quantitative responses to a similar set of questions in pre- and post-intervention Likert surveys, as indicated in Table 1 below. The 26 Likert-style questions were designed to identify student perceptions regarding the efficacy of nurse-physician communication in the respective scenarios, as well as measurable post-intervention changes in those perceptions.

Table 1. Pre- and Post-Intervention Likert Survey Items.

5 = Strongly Agree
4 = Agree
3 = Neither Agree nor Disagree
2 = Disagree
1 = Strongly Disagree
0 = Not Applicable

1. I can recognize when nurse-physician communications enhance patient care in the ICU.

2. I can recognize when nurse-physician communications diminish patient care in the ICU.

3. I can recognize when nurse-physician communications enhance patient safety in the ICU.

4. I can recognize when nurse-physician communications diminish patient safety in the ICU.

5. I can recognize when nurse-physician communications enhance inter-professional respect in the ICU.

6. I can recognize when nurse-physician communications diminish inter-professional respect in the ICU.

7. I can recognize *why* nurse-physician communications enhance patient care in the ICU.

8. I can recognize *why* nurse-physician communications diminish patient care in the ICU.

9. I can recognize *why* nurse-physician communications enhance patient safety in the ICU.

10. I can recognize *why* nurse-physician communications diminish patient safety in the ICU.

11. I can recognize *why* nurse-physician communications enhance inter-professional respect in the ICU.

12. I can recognize *why* nurse-physician communications diminish inter-professional respect in the ICU.

13. I can recognize when nurse-physician communications facilitate the management of a rapidly deteriorating ICU patient.

14. I can recognize when nurse-physician communications obstruct the management of a rapidly deteriorating ICU patient.

15. I can recognize *why* nurse-physician communications facilitate the management of a rapidly deteriorating ICU patient.

16. I can recognize *why* nurse-physician communications obstruct the management of a rapidly deteriorating ICU patient.

17. In the ICU, I can communicate effectively with nurses through shift reports about objective signs and symptoms in a rapidly deteriorating patient.

18. In the ICU, I can communicate effectively with attending physicians and residents about objective signs and symptoms in a rapidly deteriorating patient.

19. In the ICU, I can communicate effectively with nurses through shift reports about subtle signs and symptoms in a rapidly deteriorating patient.

20. In the ICU, I can communicate effectively with attending physicians and residents about subtle signs and symptoms in a rapidly deteriorating patient.

21. I learn about ICU nurse-physician communications primarily by reading about how to communicate in the ICU.

22. I learn about ICU nurse-physician communications primarily by viewing videos about how to communicate in the ICU.

23. I learn about ICU nurse-physician communications primarily by listening to lectures about how to communicate in the ICU.

24. I learn about ICU nurse-physician communications primarily by discussing inter-professional communications with ICU instructors.

25. I learn about ICU nurse-physician communications primarily by discussing inter-professional communications with classmates in Nursing.

26. I learn about ICU nurse-physician communications primarily by discussing inter-professional communications with colleagues in the health facility where I work.

Qualitative Arm of the Study

In March 2011, both study groups provided free-writing responses to three post-treatment essay questions that pertained to the print or video scenario, as indicated in Table 2 below.

As indicated in Table 3, in April 2011, both study groups provided free-writing responses to four post-treatment essay questions for each of two assigned readings:

> (1) "Perceptions of Effective and Ineffective Nurse–Physician Communication in Hospitals" from the July-September 2010 issue of *Nursing Forum* (Robinson, Gorman, Slimmer, & Yudkowsky, 2010).
>
> (2) "Lessons Learned From a Lateral Violence and Team-Building Intervention" from the October-December 2009 issue of *Nursing Administration Quarterly* (Barrett, Platek, Korber, & Padula, 2009).

Students accessed and completed each survey described above in Blackboard. The author extracted survey responses from Blackboard for quantitative or qualitative assessment.

Table 2. First Post-Intervention Qualitative Survey.

Please free-write in response to the following questions. There is no limit to how much you can write. You will not be able to backtrack after you submit a response.

Qualitative Questions For Students Who Read the Print Scenario (Treatment 1)

1. In the print scenario, what do you find most meaningful about patient status? Why?

2. In the print scenario, what did you find most meaningful about nurse-physician communications? Why?

3. Did reading help you to interpret the print scenario? Why or why not?

Qualitative Questions For Students Who View the Video Scenario (Treatment 2)

1. In the video scenario, what did you find most meaningful about patient status? Why?

2. In the video scenario, what did you find most meaningful about nurse-physician communications? Why?

3. Did watching and listening help you to interpret the video scenario? Why or why not?

Table 3: Second Post-Intervention Qualitative Survey

Please free-write in response to the following questions. There is no limit to how much you can write.

1. What do you find most meaningful about the journal article?

2. Why is that information in the journal article especially meaningful?

3. Does the journal article remind you of one or more issues addressed in the print or video scenario on ICU nurse-physician communication?

4. If yes, please explain the connection between the nurse-physician scenario you reflected on in March and the journal article you read in April.

Data Assessment

Quantitative Data

A nonparametric ANOVA analysis was conducted to assess the non-paired Likert data from the pre- and post-intervention surveys to determine whether a measurable and statistically significant change occurred in student perceptions after study participants read the print scenario or viewed the video scenario.

Qualitative Data

An inductive discourse analysis was conducted to assess the qualitative free writing data, based on methods recommended by Ellen Barton (2002) and James Paul Gee (2011). The discourse analysis identified and interpreted explicit and implicit themes in the free writing data that supported a plausible interpretation of student responses. Critical care nurse Dr. John J. Whitcomb of the Clemson University School of Nursing assisted in the qualitative assessment of free-writing data with insights regarding relevance of the data to the American Association of Critical Care Nurses' *Healthy Work Environment Assessment (AACN, 2012).* Additional advice regarding qualitative data assessment occurred at the 2012 CCCC Conference in St. Louis, in a Qualitative Research Network forum chaired by Dr. Heidi McKee.

IRB Approval

The study was approved in February 2011 by Clemson University's Institutional Review Board. Participation in the study was completely voluntary and anonymous, as indicated in the letter of informed consent that was distributed to prospective study participants (Figure 1). Study participants had the option to (1) participate in the health communication and pedagogy study for extra credit, (2) participate in an alternative extra credit (essay) assignment, or (3) decline to participate in both extra credit options. As an equivalent alternative to participating in the study, students had the option to write a double-spaced essay of at least five pages in APA format to analyze one of the journal articles assigned in April. No study participant chose that alternative. Survey responses remained confidential and were grouped for analysis and evaluation. Students were recruited to the study through Blackboard as well as in-person class meetings. Communications regarding the study occurred through Blackboard. Students completed all study-related activities through Blackboard. All study data were stored in secure facilities accessible only to the investigators. Likert data and writing samples will remain identifiable only to the investigators. Proof of course enrollment and other personal information will remain available to the investigators through indirect identifiers. In the event of data publication in a journal publication or other public format, the identity of study participants will be protected through the use of pseudonyms. Study participant identifiers will be destroyed through secure on-campus services.

IV. RESULTS

Summary of Quantitative Results in Tables 4-9.

Descriptive statistics for student responses in the pre- and post-intervention Likert-style surveys appear in Tables 4-9. Responses were assessed in relation to the following groups: Those assigned to print and video treatments as well as traditional and non-traditional students. Although data were analyzed with non-parametric ANOVA analyses, statistically significant effects did not emerge for pre- and post-intervention survey items across the various tables. That lack of significance was likely due, in part, to the small sample sizes within the respective groups. Nonetheless, some salient features of the descriptive statistics in Tables 4-9 warrant reporting as a guide to future research with a similar study design but larger sample sizes. Table 4 summarizes mean scores and standard deviations for traditional and non-traditional students who responded to the print scenario. After non-parametric analysis of variance, the following items generated noticeable (albeit statistically non-significant) variance across mean scores in the pre- and post-intervention surveys, raising the possibility for future investigation:

- Can recognize when RN-MD communications enhance respect in ICU.
- Can recognize *why* RN-MD communications diminish respect in ICU.
- Can communicate with ICU RNs thru shift reports re objective signs, symptoms.

For each of those items and the designated outcomes in Table 4 below, the direction of variance was for increased agreement after traditional and non-traditional students read the print narrative. This suggests that after respondents' read the print scenario, there was a slight increase in their perceived ability to recognize when nurse-physician communications enhance respect and why nurse-physician communications diminish respect in the ICU, as well as their perceived ability to communicate with ICU shift nurses about a patient's objective signs and symptoms.

From the perspective of health communications and healthcare rhetorics, those trends in Table 4 variance suggest that (a) the print scenario screened and framed message content that generated the salient group responses summarized above, (b) to some extent, print respondents identified with the communication breakdown depicted in the scenario, in particular, the impact that disruptive communication can have on Nursing morale and expertise, and (c) print respondents may have perceived the framing effects of fear on the scenario nurse's decisions and actions.

Table 4. Means and Standard Deviations for Print Scenario Respondents

Survey Items	Pre-Print Intervention N	Pre-Print Intervention Means and SDs	Post-Print Intervention N	Post-Print Intervention Means and SDs
Can recognize when RN-MD communications enhance patient care in ICU.	14	4.43 (1.089)	15	4.27 (.799)
Can recognize when RN-MD communications diminish patient care in ICU.	15	4.60 (.507)	15	4.53 (.516)
Can recognize when RN-MD communications enhance patient safety in ICU.	16	4.69 (.479)	15	4.47 (.516)
Can recognize when RN-MD communications diminish patient safety in ICU.	16	4.63 (.500)	15	4.60 (.507)
Can recognize when RN-MD communications enhance respect in ICU.	16	4.12 (.957)	15	4.53 (.516)
Can recognize when RN-MD communications diminish respect in ICU.	16	4.25 (.931)	15	4.47 (.516)
Can recognize *why* RN-MD communications enhance patient care in ICU.	16	4.63 (.500)	15	4.47 (.516)
Can recognize *why* RN-MD communications diminish patient care in ICU.	15	4.47 (.834)	15	4.53 (.516)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	16	4.63 (.500)	15	4.47 (.516)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	16	4.50 (.632)	15	4.53 (.516)
Can recognize *why* RN-MD communications enhance respect in ICU.	16	4.25 (.931)	15	4.53 (.516)
Can recognize *why* RN-MD communications diminish respect in ICU.	16	4.19 (1.047)	15	4.60 (.507)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	16	4.44 (.629)	15	4.33 (.617)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	16	4.31 (.946)	15	4.33 (.617)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	16	4.50 (.730)	15	4.47 (.516)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	16	4.44 (.727)	15	4.53 (.516)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	12	4.08 (1.165)	10	4.60 (.516)
Can communicate with ICU MDs regarding objective signs, symptoms.	10	4.20 (.789)	10	4.30 (.675)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	10	4.40 (.843)	10	4.70 (.483)
Can communicate with ICU MDs regarding subtle signs, symptoms.	10	4.10 (.994)	10	4.40 (.516)
Learn about ICU RN-MD communications primarily by reading.	15	3.27 (.799)	15	3.60 (.828)
Learn about ICU RN-MD communications primarily by viewing videos.	14	3.50 (.855)	14	3.14 (.864)
Learn about ICU RN-MD communications primarily by listening to lectures.	13	3.15 (1.144)	14	3.21 (1.051)
Learn about ICU RN-MD communications primarily by talking w instructors.	11	3.64 (.924)	14	3.57 (.938)
Learn about ICU RN-MD communications primarily by talking w classmates.	14	4.00 (.679)	15	3.73 (.799)
Learn about ICU RN-MD communications primarily by talking w colleagues.	9	4.11 (.333)	12	4.00 (1.044)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3, for full text of survey items.

Table 5 below summarizes mean scores and standard deviations for traditional and non-traditional students who responded to the video scenario. For those data, noticeable (albeit statistically non-significant) variance across mean scores occurred with the following items, which may merit further consideration:

- Learn about ICU RN-MD communications primarily by viewing videos.
- Learn about ICU RN-MD communications primarily by talking w colleagues.

For the item in Table 5 on learning by viewing videos, the direction of variance was for increased agreement after traditional and non-traditional students viewed the video scenario. This suggests that after respondents watched the video scenario, they expressed a greater preference for learning through video presentations.

For the item in Table 5 on learning primarily by talking with colleagues, the direction of variance indicated decreased agreement after traditional and non-traditional students viewed the video scenario. This suggests that after respondents watched the video, their perceived preference for learning by talking with colleagues declined.

From the perspectives of health communications and healthcare rhetorics, those trends in Table 5 variance suggest that the video scenario (a) screened and framed message content that generated the salient group responses summarized above and (b) the media framing effects of video slightly increased respondents' perceived preference for learning by video and slightly decreased their perceived preference for learning by talking with colleagues.

Table 5. Means and Standard Deviations for Video Scenario Respondents

Survey Items	Pre-Video Intervention N	Pre-Video Intervention Means and SDs	Post-Video Intervention N	Post-Video Intervention Means and SDs
Can recognize when RN-MD communications enhance patient care in ICU.	14	4.50 (.650)	12	4.42 (.515)
Can recognize when RN-MD communications diminish patient care in ICU.	14	4.21 (.975)	12	4.58 (.515)
Can recognize when RN-MD communications enhance patient safety in ICU.	14	4.36 (.633)	13	4.46 (.519)
Can recognize when RN-MD communications diminish patient safety in ICU.	14	4.00 (1.240)	12	4.17 (1.115)
Can recognize when RN-MD communications enhance respect in ICU.	14	4.43 (.646)	13	4.31 (.630)
Can recognize when RN-MD communications diminish respect in ICU.	14	4.07 (1.269)	12	4.08 (1.084)
Can recognize *why* RN-MD communications enhance patient care in ICU.	14	4.50 (.519)	13	4.38 (.506)
Can recognize *why* RN-MD communications diminish patient care in ICU.	14	4.29 (1.069)	13	4.15 (1.068)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	14	4.50 (.519)	13	4.38 (.506)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	14	4.07 (1.207)	13	4.23 (1.092)
Can recognize *why* RN-MD communications enhance respect in ICU.	14	4.50 (.519)	13	4.23 (.599)
Can recognize *why* RN-MD communications diminish respect in ICU.	14	4.00 (1.109)	13	4.15 (1.068)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	14	4.14 (1.099)	12	4.25 (.754)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	13	3.85 (1.281)	12	4.08 (.900)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	14	4.07 (1.141)	13	4.23 (.725)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	14	4.14 (1.099)	13	4.00 (.913)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	14	4.21 (.975)	8	3.88 (1.356)
Can communicate with ICU MDs regarding objective signs, symptoms.	14	4.07 (.997)	8	4.00 (.756)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	14	4.21 (.699)	8	3.88 (1.356)
Can communicate with ICU MDs regarding subtle signs, symptoms.	14	3.93 (.829)	8	4.00 (.756)
Learn about ICU RN-MD communications primarily by reading.	14	2.79 (.802)	10	3.10 (.876)
Learn about ICU RN-MD communications primarily by viewing videos.	14	2.79 (.802)	11	3.27 (1.104)
Learn about ICU RN-MD communications primarily by listening to lectures.	14	3.07 (1.141)	10	3.10 (1.287)
Learn about ICU RN-MD communications primarily by talking w instructors.	14	3.79 (.802)	8	3.88 (.835)
Learn about ICU RN-MD communications primarily by talking w classmates.	14	4.00 (.392)	13	3.85 (.801)
Learn about ICU RN-MD communications primarily by talking w colleagues.	9	4.11 (1.054)	5	3.40 (.894)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3 for full text of survey items.

Table 6 below summarizes mean scores and standard deviations for traditional students who responded to the print scenario. The following items generated noticeable variance:

- Can recognize when RN-MD communications enhance respect in ICU.
- Can recognize *why* RN-MD communications enhance patient care in ICU.
- Can recognize *why* RN-MD communications enhance patient safety in ICU.
- Can recognize *why* RN-MD communications enhance respect in ICU
- Can recognize *why* RN-MD communications diminish respect in ICU.
- Can communicate with ICU RNs thru shift reports re objective signs, symptoms.
- Learn about ICU RN-MD communications primarily by listening to lectures.

Table 6. Means and Standard Deviations for Traditional Students Who Responded to the Print Scenario

Survey Items	Pre-Print Intervention N	Pre-Print Intervention Means and SDs	Post-Print Intervention N	Post-Print Intervention Means and SDs
Can recognize when RN-MD communications enhance patient care in ICU.	8	4.62 (.518)	6	4.33 (.516)
Can recognize when RN-MD communications diminish patient care in ICU.	8	4.62 (.518)	6	4.67 (.516)
Can recognize when RN-MD communications enhance patient safety in ICU.	9	4.78 (.441)	6	4.33 (.516)
Can recognize when RN-MD communications diminish patient safety in ICU.	9	4.67 (.500)	6	4.50 (.548)
Can recognize when RN-MD communications enhance respect in ICU.	9	3.78 (.972)	6	4.50 (.548)
Can recognize when RN-MD communications diminish respect in ICU.	9	3.89 (.928)	6	4.33 (.516)
Can recognize *why* RN-MD communications enhance patient care in ICU.	9	4.67 (.500)	6	4.17 (.408)
Can recognize *why* RN-MD communications diminish patient care in ICU.	8	4.50 (.535)	6	4.17 (.408)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	9	4.67 (.500)	6	4.17 (.408)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	9	4.44 (.726)	6	4.17 (.408)
Can recognize *why* RN-MD communications enhance respect in ICU.	9	3.89 (1.054)	6	4.33 (.516)
Can recognize *why* RN-MD communications diminish respect in ICU.	9	4.00 (1.000)	6	4.50 (.548)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	9	4.33 (.500)	6	4.00 (.000)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	9	4.11 (1.054)	6	4.17 (.408)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	9	4.44 (.726)	6	4.33 (.516)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	9	4.33 (.707)	6	4.50 (.548)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	6	3.50 (1.378)	2	4.00 (.000)
Can communicate with ICU MDs regarding objective signs, symptoms.	4	3.75 (.500)	2	4.00 (.000)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	4	4.25 (.957)	2	4.50 (.707)
Can communicate with ICU MDs regarding subtle signs, symptoms.	4	3.75 (.500)	2	4.00 (.000)
Learn about ICU RN-MD communications primarily by reading.	9	3.33 (.866)	6	3.67 (.816)
Learn about ICU RN-MD communications primarily by viewing videos.	9	3.78 (.667)	6	3.50 (.837)
Learn about ICU RN-MD communications primarily by listening to lectures.	9	3.33 (1.000)	6	3.83 (.983)
Learn about ICU RN-MD communications primarily by talking w instructors.	7	3.86 (.690)	6	4.00 (.894)
Learn about ICU RN-MD communications primarily by talking w classmates.	9	4.33 (.500)	6	4.17 (.753)
Learn about ICU RN-MD communications primarily by talking w colleagues.	3	4.00 (.000)	3	4.33 (.577)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3 for full text of survey items.

For the items in Table 6 regarding when and why nurse-physician communications enhance inter-professional respect, why nurse-physician communications diminish respect, communicating with shift nurses about a patient's objective signs and symptoms, and learning primarily by listening to lectures, the direction of variance was for increased agreement after traditional students read the print narrative. This suggests that after traditional students read the print narrative, there may have been an increase in their perceived ability to recognize those designated outcomes. Again, however, differences were not statistically significant.

For the items in Table 6 regarding recognition of why nurse-physician communications enhance patient care and patient safety in the ICU, the direction of variance was for decreased agreement after traditional students read the print narrative. This suggests that after traditional students read the print narrative, there may have been a decrease in their perceived ability to recognize those designated outcomes.

From the perspectives of health communications and healthcare rhetorics, those salient trends in Table 6 variance suggest that (a) the print scenario screened and framed content that generated those particular perceptions among traditional students, (b) to some extent, print respondents became situated in the salient clinical and ethical aspects of the communication breakdown illustrated in the scenario, and (c) print respondents indicated a preference for combining strategies of orality (listening to lectures) and literacy (reading the print scenario) to learn and apply effective communication skills in the clinical workplace.

Table 7 below summarizes mean scores and standard deviations for traditional students who responded to the video scenario. The following items generated noticeable variance across mean scores from the pre- and post-intervention surveys.

Although not statistically significant, those variances and survey items may merit further investigation.

- Can communicate with ICU RNs thru shift reports re objective signs, symptoms.
- Can communicate with ICU RNs thru shift reports re subtle signs, symptoms
- Learn about ICU RN-MD communications primarily by reading.
- Learn about ICU RN-MD communications primarily by viewing videos.
- Learn about ICU RN-MD communications primarily by talking w colleagues.

Table 7. Means and Standard Deviations for Traditional Students Who Responded to the Video Scenario

	Pre-Video Intervention		Post-Video Intervention	
Survey Items	**N**	**Means and SDs**	**N**	**Means and SDs**
Can recognize when RN-MD communications enhance patient care in ICU.	10	4.50 (.707)	9	4.56 (.527)
Can recognize when RN-MD communications diminish patient care in ICU.	10	4.50 (.707)	9	4.67 (.500)
Can recognize when RN-MD communications enhance patient safety in ICU.	10	4.50 (.527)	10	4.50 (.527)
Can recognize when RN-MD communications diminish patient safety in ICU.	10	4.00 (1.414)	9	4.22 (1.302)
Can recognize when RN-MD communications enhance respect in ICU.	10	4.60 (.699)	10	4.40 (.699)
Can recognize when RN-MD communications diminish respect in ICU.	10	4.00 (1.491)	9	4.11 (1.269)
Can recognize *why* RN-MD communications enhance patient care in ICU.	10	4.50 (.527)	10	4.50 (.527)
Can recognize *why* RN-MD communications diminish patient care in ICU.	10	4.20 (1.229)	10	4.20 (1.229)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	10	4.60 (.516)	10	4.50 (.527)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	10	4.20 (1.229)	10	4.30 (1.252)
Can recognize *why* RN-MD communications enhance respect in ICU.	10	4.60 (.516)	10	4.30 (.675)
Can recognize *why* RN-MD communications diminish respect in ICU.	10	4.00 (1.247)	10	4.10 (1.197)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	10	4.00 (1.247)	9	4.22 (.833)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	9	4.00 (1.323)	9	4.11 (1.054)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	10	4.10 (1.287)	10	4.20 (.789)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	10	4.10 (1.197)	10	4.10 (.994)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	10	4.00 (1.054)	5	3.60 (1.673)
Can communicate with ICU MDs regarding objective signs, symptoms.	10	4.00 (1.054)	5	3.80 (.837)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	10	4.00 (.667)	5	3.60 (1.673)
Can communicate with ICU MDs regarding subtle signs, symptoms.	10	4.00 (.943)	5	4.00 (.707)
Learn about ICU RN-MD communications primarily by reading.	10	2.60 (.699)	7	3.14 (.900)
Learn about ICU RN-MD communications primarily by viewing videos.	10	2.70 (.823)	8	3.38 (1.188)
Learn about ICU RN-MD communications primarily by listening to lectures.	10	3.40 (1.075)	7	3.14 (1.464)
Learn about ICU RN-MD communications primarily by talking w instructors.	10	3.80 (.789)	5	3.80 (1.095)
Learn about ICU RN-MD communications primarily by talking w classmates.	10	4.10 (.316)	10	3.90 (.876)
Learn about ICU RN-MD communications primarily by talking w colleagues.	5	4.00 (1.414)	2	3.00 (1.414)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3 for full text of survey items.

For the items in Table 7 regarding learning by reading and learning by viewing videos, the direction of variance was for increased agreement after traditional students watched the video scenario. This suggests that after traditional students viewed the video, there was a slight increase in their perceived preference for learning about nurse-physician communication by reading and by viewing videos. From the perspective of health communication and healthcare pedagogy, that trend in variance suggests a potential role for combined print and multimedia strategies to teach principles of inter-professional communication to traditional Nursing students.

For the items in Table 7 regarding communicating with shift nurses about a patient's objective and subtle signs and symptoms and learning by talking with colleagues, the direction of variance was for decreased agreement after traditional students watched the video narrative. This suggests that after traditional students watched the video, there was a slight decrease in their perceived ability to communicate with shift nurses about objective signs and symptoms and to learn by talking with colleagues. From the perspective of health communication and healthcare rhetorics, those trends in Table 7 variance suggest that the video scenario produced media framing effects that may have reduced traditional students' confidence in their ability to communicate with shift nurses and in their preference for learning through conversation with colleagues. Perhaps those survey items addressed exigencies in on-the-job patient care for which traditional students had relatively little or no prior experience.

Table 8 below summarizes mean scores and standard deviations for non-traditional students who responded to the print scenario. The following item generated noticeable variance across mean scores from the pre- and post-intervention surveys. Although not statistically significant, that variance and survey item may warrant further study:

- Learn about ICU RN-MD communications primarily by reading.

For the item in Table 8 regarding learning primarily by reading, the direction of variance was for increased agreement after non-traditional students read the print narrative. This suggests that there was a slight increase in non-traditional students' perceived preference for reading as a strategy to learn about issues in nurse-physician communication.

From the perspective of healthcare rhetoric and composition, that finding suggests that future literacy strategies could prove effective for the non-traditional students who participated in the study, perhaps strategies that combine standard print and web based texts.

Table 8. Means and Standard Deviations for Non-Traditional Students Who Responded to the Print Scenario

Survey Items	Pre-Print Intervention N	Pre-Print Intervention Means and SDs	Post-Print Intervention N	Post-Print Intervention Means and SDs
Can recognize when RN-MD communications enhance patient care in ICU.	6	4.17 (1.602)	9	4.22 (.972)
Can recognize when RN-MD communications diminish patient care in ICU.	7	4.57 (.535)	9	4.44 (.527)
Can recognize when RN-MD communications enhance patient safety in ICU.	7	4.57 (.535)	9	4.56 (.527)
Can recognize when RN-MD communications diminish patient safety in ICU.	7	4.57 (.535)	9	4.67 (.500)
Can recognize when RN-MD communications enhance respect in ICU.	7	4.57 (.787)	9	4.56 (.527)
Can recognize when RN-MD communications diminish respect in ICU.	7	4.71 (.756)	9	4.56 (.527)
Can recognize *why* RN-MD communications enhance patient care in ICU.	7	4.57 (.535)	9	4.67 (.500)
Can recognize *why* RN-MD communications diminish patient care in ICU.	7	4.43 (1.134)	9	4.78 (.441)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	7	4.57 (.535)	9	4.67 (.500)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	7	4.57 (.535)	9	4.78 (.441)
Can recognize *why* RN-MD communications enhance respect in ICU.	7	4.71 (.488)	9	4.67 (.500)
Can recognize *why* RN-MD communications diminish respect in ICU.	7	4.43 (1.134)	9	4.67 (.500)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	7	4.57 (.787)	9	4.56 (.726)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	7	4.57 (.787)	9	4.44 (.726)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	7	4.57 (.787)	9	4.56 (.527)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	7	4.57 (.787)	9	4.56 (.527)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	6	4.67 (.516)	8	4.75 (.463)
Can communicate with ICU MDs regarding objective signs, symptoms.	6	4.50 (.837)	8	4.38 (.744)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	6	4.50 (.837)	8	4.75 (.463)
Can communicate with ICU MDs regarding subtle signs, symptoms.	6	4.33 (1.211)	8	4.50 (.535)
Learn about ICU RN-MD communications primarily by reading.	6	3.17 (.753)	9	3.56 (.882)
Learn about ICU RN-MD communications primarily by viewing videos.	5	3.00 (1.000)	8	2.88 (.835)
Learn about ICU RN-MD communications primarily by listening to lectures.	4	2.75 (1.500)	8	2.75 (.886)
Learn about ICU RN-MD communications primarily by talking w instructors.	4	3.25 (1.258)	8	3.25 (.886)
Learn about ICU RN-MD communications primarily by talking w classmates.	5	3.40 (.548)	9	3.44 (.726)
Learn about ICU RN-MD communications primarily by talking w colleagues.	6	4.17 (.408)	9	3.89 (1.167)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3 for full text of survey items.

Table 9 below summarizes means and standard deviations for non-traditional students who responded to the video narrative. Noticeable but non-significant variance occurred with these items:

- Can recognize when RN-MD communications enhance patient care in ICU.
- Can recognize when RN-MD communications diminish patient care in ICU.
- Can recognize *why* RN-MD communications enhance patient care in ICU.
- Can recognize *why* RN-MD communications diminish patient care in ICU.

- Can recognize when RN-MD communications obstruct ICU patient mgmt.
- Can recognize *why* RN-MD communications obstruct ICU patient mgmt.
- Learn about ICU RN-MD communications primarily by listening to lectures.
- Learn about ICU RN-MD communications primarily by talking w colleagues.

For the items in Table 9 regarding recognition of when RN-MD communications diminish patient care, when communications obstruct patient management, and learning primarily by listening to lectures, the direction of variance was for increased agreement after non-traditional students viewed the video narrative. This suggests that after non-traditional students watched the video, there was a slight increase in their perceived ability to recognize those outcomes. From the perspective of health communications and healthcare rhetorics, those trends in Table 9 variance suggest that the framing effects of the video led non-traditional students to experience greater confidence in their understanding of when nurse-physician communication affects patient care and patient management, as well as a greater preference for learning through lectures.

For the items in Table 9 regarding recognition of *why* RN-MD communications enhance or diminish patient care, *why* communications obstruct patient management, and learning primarily by talking with colleagues, the direction of variance was for decreased agreement after non-traditional students viewed the video narrative. This suggests that

after non-traditional students watched the video, there was a decrease in their perceived ability to recognize those outcomes. From the perspective of health communications and healthcare rhetorics, those trends in variance suggest that the framing effects of the video led non-traditional students to experience lesser confidence in their understanding of *why* RN-MD communications affect aspects of patient care and patient management, as well as lesser preference for learning by talking with colleagues.

Table 9. Means and Standard Deviations for Non-Traditional Students Who Responded to the Video Scenario

	Pre-Video Intervention		Post-Video Intervention	
Survey Items	**N**	**Means and SDs**	**N**	**Means and SDs**
Can recognize when RN-MD communications enhance patient care in ICU.	4	4.50 (.577)	3	4.00 (.000)
Can recognize when RN-MD communications diminish patient care in ICU.	4	3.50 (1.291)	3	4.33 (.577)
Can recognize when RN-MD communications enhance patient safety in ICU.	4	4.00 (.816)	3	4.33 (.577)
Can recognize when RN-MD communications diminish patient safety in ICU.	4	4.00 (.816)	3	4.00 (.000)
Can recognize when RN-MD communications enhance respect in ICU.	4	4.00 (.000)	3	4.00 (.000)
Can recognize when RN-MD communications diminish respect in ICU.	4	4.25 (.500)	3	4.00 (.000)
Can recognize *why* RN-MD communications enhance patient care in ICU.	4	4.50 (.577)	3	4.00 (.000)
Can recognize *why* RN-MD communications diminish patient care in ICU.	4	4.50 (.577)	3	4.00 (.000)
Can recognize *why* RN-MD communications enhance patient safety in ICU.	4	4.25 (.500)	3	4.00 (.000)
Can recognize *why* RN-MD communications diminish patient safety in ICU.	4	3.75 (1.258)	3	4.00 (.000)
Can recognize *why* RN-MD communications enhance respect in ICU.	4	4.25 (.500)	3	4.00 (.000)
Can recognize *why* RN-MD communications diminish respect in ICU.	4	4.00 (.816)	3	4.33 (.577)
Can recognize when RN-MD communications facilitate ICU patient mgmt.	4	4.50 (.577)	3	4.33 (.577)
Can recognize when RN-MD communications obstruct ICU patient mgmt.	4	3.50 (1.291)	3	4.00 (.000)
Can recognize *why* RN-MD communications facilitate ICU patient mgmt.	4	4.00 (.816)	3	4.33 (.577)
Can recognize *why* RN-MD communications obstruct ICU patient mgmt.	4	4.25 (.957)	3	3.67 (.577)
Can communicate with ICU RNs thru shift reports re objective signs, symptoms.	4	4.75 (.500)	3	4.33 (.577)
Can communicate with ICU MDs regarding objective signs, symptoms.	4	4.25 (.957)	3	4.33 (.577)
Can communicate with ICU RNs thru shift reports re subtle signs, symptoms.	4	4.75 (.500)	3	4.33 (.577)
Can communicate with ICU MDs regarding subtle signs, symptoms.	4	3.75 (.500)	3	4.00 (1.000)
Learn about ICU RN-MD communications primarily by reading.	4	3.25 (.957)	3	3.00 (1.000)
Learn about ICU RN-MD communications primarily by viewing videos.	4	3.00 (.816)	3	3.00 (1.000)
Learn about ICU RN-MD communications primarily by listening to lectures.	4	2.25 (.957)	3	3.00 (1.000)
Learn about ICU RN-MD communications primarily by talking w instructors.	4	3.75 (.957)	3	4.00 (.000)
Learn about ICU RN-MD communications primarily by talking w classmates.	4	3.75 (.500)	3	3.67 (.577)
Learn about ICU RN-MD communications primarily by talking w colleagues.	4	4.25 (.500)	3	3.67 (.577)

Standard Deviations are in parentheses. Five point Likert Scale: Strongly Disagree = 1, Disagree = 2, Neither Agree nor Disagree = 3, Agree = 4, Strongly Agree = 5. Abbreviations for survey items are in column one. See Table 1, Ch. 3 for full text of survey items.

Additional Observations Regarding the Quantitative Data

The differences in direction of variance noted above for the quantitative data in respective tables is intriguing, in particular, the declines in group agreement for some survey items after respondents interacted with the respective scenarios. Future research with larger sample sizes may confirm whether differences in variance hold promise for statistical significance. Future research also could help to explain which elements of the respective narratives and their communication exigencies – e.g., those exigencies involving inter-professional and clinical logos, pathos, and ethos -- have the greatest impact on students' post-intervention scores. Also of note for further investigation: Video recipients were a little more likely to generate items of greater variance than print recipients. Whether that result is an artifact of the study, and whether that observation will occur with larger sample sizes, remain open questions. The qualitative data represented in Tables 10 and 11 help to shed light on why so many survey items across tables and groups resulted in an apparent homogeneity of perception among traditional and non-traditional students who received either the print or video narrative. In addition to the modest sample sizes for the two groups of print or video recipients and traditional or non-traditional students, another factor may account for the absence of statistical significance across all survey items in Tables 4-9. Study participants, irrespective of groups, agreed about the gravity of the communication breakdown depicted in the print and video scenarios and the potential impact such communication meltdowns can have on patient care and patient safety.

Those observations regarding the homogeneity of student perceptions are supported by the qualitative free writing data summarized in Tables 10 and 11.

Summary of Qualitative Rich Features in Table 10

Table 10 below summarizes rich features for an inductive discourse analysis of free writing responses by traditional and non-traditional students who received the print scenario and responded to the first post-intervention qualitative survey.

Table 10. Salient (Rich) Features for Inductive Discourse Analysis. Print Respondents. Qualitative Post-Intervention Survey 1.

Salient rich features in print respondents' free-writing	*# of times across 3 survey items*	*Rhetorical, situational, or pedagogical implications*
Suggested that the patient's wellbeing should be paramount or that effective RN-MD communication and mutual trust can enhance patient care or patient safety.	10	Reflected an ethos of patient care & effective clinical communication.
Expressed identification and empathy with the scenario nurse and/or disapproval of the scenario physician's behavior.	10	Respondent became situated in print scenario exigencies.
Mentioned or referred to the scenario nurse's apparent fear/ timidity or the scenario physician's apparent hostility and disrespect.	10	Respondent became situated in print scenario exigencies.
Mentioned the patient's renal status and/or the lab value for creatinine but did not specify the numbers in the changing lab value.	9	Identified key facts essential to clinical thinking or practice.
Expressed satisfaction with the print scenario.	7	Supported role for print strategies in clinical education.
Assigned blame to both the scenario nurse and physician or attempted to see both sides of the RN-MD conflict.	6	Respondent became situated in print scenario exigencies.
Preferred having the video scenario.	4	Supported role for multimodal strategies in clinical education.
Expressed frustration that the scenario nurse did not grasp the patient's improving condition or that nurses on the prior shift did chart properly.	3	Respondent became situated in print scenario exigencies.
Mentioned the scenario patient's renal status and specified the numbers in the changing lab value for creatinine or mentioned drugs administered to the patient.	2	Identified key facts essential to clinical thinking or practice.
Emphasized the importance of charting to patient care.	2	Reflected an ethos of patient care & effective clinical communication.

Please see Table 2 in Ch. 3 for the full text of the three questions (the writing prompt) in the first post-intervention qualitative survey.

Five traditional students and seven non-traditional students completed the first post-intervention survey for print recipients. As indicated in Table 10, the following rich features appeared most often in the free writing responses of students who received the print scenario:

- Respondents suggested that the patient's wellbeing should be paramount or that effective RN-MD communication and mutual trust can enhance patient care or patient safety. (10x)

- Respondents expressed identification and empathy with the scenario nurse and/or disapproval of the scenario physician's behavior. (10x)

- Respondents mentioned or referred to the scenario nurse's apparent fear/timidity or the scenario physician's apparent hostility/disrespect. (10x)

- Respondents mentioned the patient's renal status and/or the lab value for creatinine but did not specify the numbers in the changing lab value. (9x)

- Respondents expressed satisfaction with the print scenario (7x)

The first three areas of response reflected an ethos of patient care and effective clinical communication. Those responses also suggested that print recipients were situated in the clinical and communication exigencies depicted in the print narrative. The fourth and fifth areas of response pointed to the rhetorical agency that can occur with well-crafted print texts that address salient issues in health communication and clinical practice.

The data in Table 10 also suggest that students who received the print scenario were slightly more likely to perceive and mention salient facts related to the patient's clinical condition, e.g., the patient's renal status, the changing lab value, or the medication error that resulted in the patient's transfer to intensive care. Four print recipients expressed a desire to receive the video scenario in order to discern tone of voice, gestures, and other contextual cues in the communication exchange between the scenario nurse and physician. That finding suggests that combined print and multimodal strategies could increase the ability of those students to learn and apply insights from the print narrative.

Those various observations about the qualitative responses of print recipients are reflected in the following free writing excerpts.[1] The excerpts come from the archive of print recipients' responses to the first post-intervention qualitative survey, which appears in Addendum A at the end of this dissertation.

Salient Responses to the First Post-Intervention Qualitative Survey

Survey Question 1. What do you find most meaningful about patient status and why?

- *"I think the nurses and the doctors should know the status of the patient when there is a drastic or critical change. In the first scenario the nurse should have known to check the diagnosis when she saw that the creatinine level was high because it indicates renal failure. There would be no need to call the doctor because the patients (sic) admitting diagnosis was renal failure and the patient's status was actually improving. The doctor should only be notified in the middle of the night if the patient's status was declining and something needed to be done by the doctor."*

- *"I find it meaningful that the patient status has changed. Even though the level of creatinine has changed from worse to better, I still feel that this number is a critical value. I think it was the right decision of the nurse to report the lab value. We have learned in class that if you do not document or report something, it is like that you have not done it at all."*

- *"A patients (sic) status is very crucial. If you give the wrong medications to patients, the results can be life threatening.*

Those excerpts support the speculation that the print narrative effectively situated study participants in clinical and communication exigencies regarding patient care and patient safety.

Survey Question 2: What did you find most meaningful about nurse-physician communication and why?

- *"The hostility of the MD. Happens quite frequently. And some nurses are very afraid to talk to certain physicians because of that hostility. That does not mean the nurse is incompetent--it means the nurse is scared."*

- *"The most meaningful thing I learned about the nurse-physician communication is that the physician did not believe the nurse was competent…. Also, the physician believed he would love to have a competent nurse but doesn't believe the hospital has any. The physician states how 2 year degree nurses are only JACHO enforcers. The nurse now has a decrease in confidence and feels uneasy to notify the physician if another problem occurs. This breaks the line of communication and could further decline the patient's care."*

- "*The doctor, understandably, could have been agitated because he was tired, (sic) however he handled the nurses call in an inappropriate way. I couldn't believe that the nurse had worked there for so many years and the doctor still didn't know her name, and also questioned her schooling. He also challenged her knowledge, saying basically it would have been handled if there were more nurses who were men ...*"

- *"The nurse and physician feel the same way about each other. They need to realize that the patient comes first… The nurse that previously spoke with the physician ... should have documented that the physician was notified… this call could have been prevented. Nurses need to make sure that they have all the information ready when notifying physicians about a patients (sic) status. Physicians need to be more professional when talking to nurses."*

Those excerpts support the speculation that students who received the print narrative effectively discerned the pathos in the conflict between the scenario nurse and the physician, in particular, the nurse's fear and the physician's anger. Moreover, the excerpts suggest that fear and anger were message frames for print recipients who reflected on the communication dynamics in the scenario.

The excerpts above also suggest that the print narrative allowed respondents to gain enough objectivity to assign responsibility for the communication breakdown to both parties, albeit with more apparent emotional support for the scenario nurse.

Survey Question 3: Did reading help you to interpret the print scenario? Why or why not?

- *"The print scenario helped me visualize and feel what was going on in the physician-nurse situation. I could easily fit myself into this scenario based on personal experiences I have had at my job."*

- *"Reading did help understand the print scenario, (sic) however I feel that I would do much better being able to both read and watch the scenario. Hearing and seeing the information at the same time would make it stay in my memory so much longer."*

- *"I enjoyed reading the print scenario because it allowed for easy comparison between both parties (sic) feelings on similar matters. I could easily scroll back to what the nurses stated about one situation and compare the physician's feelings on the same situation."*

Those excerpts suggest that print was an effective pedagogical springboard for some print recipients, but other print respondents apparently would benefit from a combination of print and multimodal strategies to learn about issues in nurse-physician communication.

Summary of Qualitative Rich Features in Table 11

Table 11 summarizes rich features for a discourse analysis of video recipients' responses to the first post-intervention qualitative survey.

Table 11. Salient (Rich) Features for Inductive Discourse Analysis. Video Respondents. Qualitative Post-Intervention Survey 1.

Salient rich features in video respondents' free-writing	***# of times across 3 survey items***	***Rhetorical, situational, or pedagogical implications***
Suggested that the patient's wellbeing should be paramount or that effective RN-MD communication and mutual trust can enhance patient care and safety.	18	Reflected an ethos of patient care and effective clinical communication.
Valued seeing communicators' gestures and hearing their tone of voice as cues to interpreting attitude and message.	13	Identified contextual cues essential to clinical communication or practice.
Assigned blame to both the scenario nurse and physician or attempted to see both sides of the RN-MD conflict.	10	Respondent became situated in video scenario exigencies.
Expressed identification and empathy with the scenario nurse and/or disapproval of the scenario physician's behavior.	6	Respondent became situated in video scenario exigencies.
Referred to the scenario nurse's apparent fear and timidity or the scenario physician's apparent hostility or intimidation.	2	Respondent became situated in video scenario exigencies.
Underscored the value of charting or the value of a nurse's intuition regarding patient care and patient safety.	2	Reflected an ethos of patient care and effective clinical communication.
Stated the value of a nurse's intuition regarding patient care and patient safety.	1	Respondent became situated in video scenario exigencies.
Referred to the patient's renal status, the changing lab value for creatinine, or the medication error.	1	Supported role for print + multimodal strategies in clinical education.
Expressed frustration that the scenario nurse did not discern the patient's improving condition or that nurses on the prior shift did not chart properly.	0	Supported role for print + multimodal strategies in clinical education.
Preferred having the print scenario.	0	Supported role for multimodal strategies in clinical education.

Please see Table 2 in Ch. 3 for the full text of the three questions (the writing prompt) in the first post-intervention qualitative survey.

Ten traditional students and two non-traditional students completed the first post-intervention qualitative survey for video recipients. As indicated in Table 11, the following rich features appeared most often in respondents' free writing comments:

- Respondents suggested that the patient's wellbeing should be paramount or that effective RN-MD communication and mutual trust can enhance patient care and safety. (18x)

- Respondents valued seeing communicators' gestures and hearing their tone of voice as cues to interpret attitude and message. (13)

- Respondents assigned blame to both the scenario nurse and physician or attempted to see both sides of the nurse-physician conflict. (10x)

- Respondents expressed identification and empathy with the scenario nurse and/or disapproval of the scenario physician's behavior. (6x)

The first response suggested an ethos of patient care and effective clinical communication to ensure patient safety. The second response suggested the identification of contextual cues essential to clinical communication and practice. The third and fourth responses

suggested that respondents were situated in the clinical and communication exigencies depicted in the video scenario. Those observations about the qualitative responses of video recipients are reflected in the following free writing excerpts.[1] The excerpts come from the archive of video recipients' responses to the first post-intervention qualitative survey, which appears in Addendum B at the end of this dissertation.

Survey Question 1. What do you find most meaningful about patient status and why?

- "*I found the most meaningful that nurses are too scared to call the doctor about an unclear order. They are messing with the patient's life and it could be fatal. Communication is very important and each party should be mutually respectful."*

- *" ...the nurse should have put the patient's status even higher above her fear of calling the doctor again for the patient's safety."*

- *"The patient did not seem to be a part of this drama ... It seemed the nurse and doctor were too involved in their own drama ... to realize what had become of the patient. It seems to me that the patient was an innocent bystander while their (sic) care quickly deteriorated."*

These excerpts suggest that the framing effects of fear and intimidation were evident in the video scenario and in video respondents' free writing responses. The excerpts also suggest that the video's framing effects allowed viewers to become situated in the clinical and communication exigencies depicted in the scenario. In particular, the excerpts provide additional evidence that study participants prioritized patient safety above inter-clinician conflicts and misunderstandings.

Survey Question 2: What did you find most meaningful about nurse-physician communication and why?

- *"The way they communicated was childish and inappropriate. It took the focus off of the patient and caused the main concern to be the personal feelings of the physician or nurse. This is not professional and puts the patient at risk. Doctors need to respect the profession of nurses and realize they work hard also, and nurses need to respect the knowledge and hard work that physicians put into their patient care."*

- *"I was appalled to hear how the doctor treated the nurse. It is better to be safe and make sure the doctor is aware of a certain critical value than be sorry for not calling and the patient coding."*

- *"I found that this video gave a very good idea of areas needed in improvement for nurses and physicians. A lack of effective communication ultimately endangered a patient's life. A patient's status should be the priority and therefore effective communication means should be used."*

- *"The communication between the nurse and physician were (sic) terrible … The patient should have been the first priority, but it seemed that the major priority was looking out for yourself and tiptoeing around others."*

Those excerpts suggest that the framing effects of the video enabled nurses to identify with the scenario nurse and the clinical and ethical challenges she faced. Also the framing effects of the video apparently enabled respondents to achieve enough objectivity to assign responsibility for the communication breakdown to both the scenario nurse and the scenario physician, with greater emotional support for the scenario nurse.

Survey Question 3: Did watching and listening help you to interpret the video scenario? Why or why not?

- "*…not only was I able to hear the tone and inflections in the speakers (sic) voice I was able to notice gestures and body language… I have not had any clinical experience … so a video really helped me to realize the dynamic and recognize why this would be such a huge (and preventable) issue in hospitals and ICU's."*

- "*Yes, I think it is more meaningful when you are able to watch a scene get played out. It helps you to see how it would be in real life. Even though some parts were hard to hear, the message was clear. Nurses and physicians need to communicate more with one another in order to ensure patient safety and health."*

- *"Watching and listening did help me to interpret the video scenario, because I was able to see facial expressions, body language, and hand gestures, which made it a lot easier to understand the message that was being portrayed."*

Those excerpts point to the rhetorical agency of the video in communicating verbal and nonverbal information that allowed viewers to perceive and interpret key contextual cues in the scenario. For example, video recipients relied upon their perceptions of gesture and tone of voice to interpret interlocutors' emotions and attitudes. Video recipients also were more likely than print recipients to assign accountability for the nurse-physician communication breakdown, often assigning that responsibility to both the scenario physician and the scenario nurse, with more emotional and disciplinary support for the nurse. Video recipients were less likely than print recipients to mention details of the patient's renal status.

Salient Areas of Convergence in Student Free Writing Data, Irrespective of Groups

Regardless of whether traditional or non-traditional students received the print or video scenario, each group of respondents perceived and mentioned the need for effective nurse-physician communication and inter-professional trust and civility to ensure patient care and patient safety. A few nurses in each group (presumably the more veteran non-traditional nurses) were critical of the scenario nurse's timidity or the fact that she did not discern the changing creatinine value within the context of the patient's admitting diagnosis, which in turn could have altered the late night phone call to the physician -- perceptions that presumably result from significant on the job experience in Nursing.

The free writing data from the first post-intervention qualitative survey suggest that both print and video respondents readily discerned when the boundaries of unprofessional conduct had been crossed. Many print and video respondents took issue with the scenario physician's behavior, described by some respondents as rudeness, hostility, or ignorance. Although no print or video respondents mentioned misogyny as a contributor to miscommunication and disruptive actions, misogyny was implied by a few students, who noted that the physician believed that male nurses would be more competent and reliable coworkers than female nurses.

A few print respondents indicated in their free writing that receiving the video narrative could assist with comprehension and/or recall of salient points. Two print respondents commented on the changing clinical status of the patient but did not reflect on the quality of nurse-physician communication. Perhaps contextual cues in the video narrative would have helped those print recipients to assess the clinical impact of comments by the scenario physician and nurse. Although print recipients needed to imagine the tone of voice in the nurse-physician exchanges, the blunt exchanges conveyed in the print narrative appeared to resonate with many print recipients as potential or actual events that they could experience in clinical practice. That perception also apparently occurred for many video recipients. Thus, based on the free writing data, it appears that both the print and video narratives situated many of the traditional and non-traditional students in the communication exigencies depicted in the respective scenarios.

Interestingly, print respondents as a group included more written text in their free writing entries than did video respondents.

Salient Responses to the Second Post-Intervention Qualitative Survey

The qualitative responses and perceptions summarized in Table 10 and Table 11 are supported by free writing data from the second post intervention qualitative survey, which was administered at the end of the Spring 2011 semester. Students from each

group responded to that survey. Prior to completing the survey, traditional and non-traditional print and video recipients read a journal article on behaviors and attitudes thought to contribute to, or obstruct, effective nurse-physician communication in a hospital setting.[2] Then students free wrote in response to questions regarding the article and its possible relevance to information encountered earlier in the study. (Please see Table 3 for the full text of the second post-intervention qualitative survey.)

Salient excerpts from that survey appear below.[1]

- *"I think that it is very meaningful that nurses and physicians acknowledge there is ineffective nurse-physician communication in the workplace, which leads to decreased patient safety. However, the sad thing is that these nurses and physicians acknowledge but rarely do anything to solve these problems…."*
- *".... I found that the most meaningful message from the article was the emphasis on caring not to make your colleagues feel humiliated. I think that it is so easy to become fixated on 'your job' that you forget that others have 'their job' and the areas where they thrive in …."*

- *“.... After reading through the article, I found the most meaningful pieces to be in the ‘Findings’ section ... the importance of clarity and precision, a calm and patient demeanor, a collaborative-ready attitude, mutual respect, and understanding and accepting on one's role in order to have good communication. Poor communication can occur if any one or more of these characteristics are absent, but also if there is an attitude that one worker is better or more important than the other, dependence on tools rather than the mind, and barriers in language or culture are present.... (sic)”*

- *“.... Often, healthcare workers only consider how effective communication within the nurse-patient or physician-patient relationship (sic). Understanding what nurses and physicians find to be the top five ways of effective communication as well as three main ways that contribute to ineffective communication is important in preserving patient safety and developing trust in the hospital....”*

- *“... Physicians need to learn the scope of practice for nurses so they can understand what nurses do and how important their jobs are to patients and physicians.... The dependence on electronic systems also needs to be changed because it is hindering the face-to-face time between physicians and nurses and delaying care for patients.”*

The qualitative and quantitative data reported above provide a basis for determining whether the research questions at the end of Ch. 2 are confirmed or rebutted. Ch. 5 of this dissertation interprets those quantitative and qualitative data from the interdisciplinary perspectives of health communication, healthcare rhetoric and composition, and Nursing education and practice.[3]

Endnotes

1. Study participants' responses are in italics. Some longer responses have been condensed. Responses have not been edited for typos or sentence mechanics.

2. "Perceptions of Effective and Ineffective Nurse–Physician Communication in Hospitals" from the July-September 2010 issue of *Nursing Forum* (Robinson, Gorman, Slimmer, & Yudkowsky, 2010).

3. Student perceptions regarding the need for improved nurse-physician communication in the clinical workplace also were supported by free writing data from a third post intervention qualitative survey administered at the end of the Spring 2011 semester. For that questionnaire, study participants read and responded to a journal article on team building strategies to prevent nurse-nurse lateral hostility. Those data are not included in this dissertation.

V. DISCUSSION

Part A summarizes the rhetorical and health communication implications of noticeable trends in variance in the pre-and post-intervention Likert data from traditional and non-traditional students who received the print or video version of the dramatization, *Of Lions and Lambs*. Part B summarizes a discourse analysis of the free writing data from traditional and non-traditional students who received the print or video narrative. For each group and each set of data, the following interpretations focus on students' perceptions of, or reactions to, the screening and framing effects in the print and video narratives. Results from the nonparametric ANOVA analysis of the Likert data and the discourse analysis of the free-writing data suggest that the agency of the spoken word to support or confound nurse-physician communication, clinical ethos, and patient care is exemplified in the video and script for *Of Lions and Lambs.*

Part A. Quantitative Analysis: Rhetorical and Health Communication Implications of the Likert Data. Speculations about the Framing Effects of the Print and Video Narratives.

Although no statistical significance emerged from the pre- and post-intervention Likert data, a few noticeable trends in group variance across the twenty-six survey items hold promise for future investigation with larger sample sizes, as illustrated in Tables 4-9.

Those noticeable trends in variance are interpreted below for (a) all study participants combined into one meta group and (b) for study participants organized into separate groups, i.e., traditional students who received either the print or video scenario and non-traditional students who received either the print or video scenario.

1. Noticeable Trends in Variance among All Traditional and Non-Traditional Students Combined into One Group.

a. Traditional and Non-Traditional Students Who Received the Print Scenario: Table 4 Noticeable Variances.

After reading the print scenario, traditional and non-traditional students who received that treatment appeared more confident in their ability to recognize when nurse-physician communication enhances respect and why RN-MD communication diminishes respect in the ICU. From the perspective of healthcare rhetoric and framing theory, those trends in variance, although statistically non-significant, suggest that the dialogue, action, and implicit setting in the print narrative may have screened and framed contextual as well as factual information for respondents, as if the Nursing students had read a compelling television script, film script, or one act play, thus confounding the research supposition that print recipients would discern mostly factual content and video recipients would

discern mostly contextual cues from the respective scenarios. One possible explanation is that the print narrative embodied a rhetorical appeal to pathos that effectively situated respondents in the story line. Put another way, print recipients may have been influenced by the framing effects of fear and intimidation, as reflected in the scenario nurse's thoughts and actions. That speculation about the rhetorical agency of emotion in the print narrative is reflected also in the free writing data in Part B of this chapter and is supported by the prior work of communication researchers on the framing effects of emotion in various political messages and contexts (Lauckner et al, 2012; Namkoong, Fung, & Scheufele, 2012; Arpan & Nabi, 2011; Nabi, 2003).

The combined group of traditional and non-traditional print recipients also expressed a slightly greater perceived ability to communicate with ICU shifts nurses about a patient's status. From a Burkean perspective, that noticeable trend in variance suggests that print recipients may have experienced identification and to some extent consubstantiation with the scenario nurse and her conflicted situation, perhaps raising print respondents' awareness of their own expertise or vulnerability regarding late night phone calls to confirm a physician's order or to update a physician about a patient's status. Also, the perceived greater confidence of print recipients regarding communicating with ICU shift nurses about patient status suggests that the print scenario may have communicated an appeal to logos, i.e., clinical reasoning regarding the scenario patient's changing

condition. Those speculations also are supported in the free writing data from traditional and non-traditional students, summarized below in Part B.

b. Traditional and Non-Traditional Students Who Received the Video Scenario: Table 5 Noticeable Variances.

After watching the video scenario, traditional and non-traditional students who received that treatment appeared more confident of their preference for learning by viewing videos. Although statistically non-significant, that trend in variance suggests that the dialogue, action, and setting in the video narrative may have screened and framed information that situated video recipients in the dramatized conflicts and their corresponding message frames, thus increasing respondents' perceived confidence in their ability to learn through video dramatizations. That finding is supported by Goffman's (1974) observations about the framing power of theatrical performances to unite actors and audiences symbolically in an unfolding dramatization, thus actively (not passively) shaping an audience's perceptions about the meanings of a dramatized conflict and how those meanings help individual viewers to interpret and assign significance to corresponding real life experiences. That speculation also is supported by Scheufele's (1999) observations about the ability of media frames and audience frames to contribute interactively to an audience's perceptions of reality. Study participants' preference for learning by video is also supported by the qualitative free writing data.

Conversely, after watching the video, traditional and non-traditional students apparently were less confident of their preference for learning by talking with colleagues. Conceivably, that downward trend in variance may be explained, in part, by traditional students' relative lack of clinical experience at the time of the study, resulting in (a) insufficient experiential knowledge of the conflicts and communication breakdown depicted in *Of Lions and Lambs*, (b) less assurance about learning from the insights and experiences of other traditional Nursing students who, like themselves, may have lacked sufficient clinical experience in the Spring 2011 semester, and (c) less assurance about consulting with more veteran RN-BS students about the dynamics of nurse-physician communication.

Interestingly, in the data interpreted below for Table 9, non-traditional students who watched the video also had lesser confidence in learning by talking with colleagues. Although the trends in variance described here for learning by talking with peers are not supported in the free writing data (because the qualitative surveys did not inquire about learning styles), those trends may merit consideration for possible follow up research.

2. Noticeable Trends in Variance among Traditional and Non-Traditional Students Separated By Group.

a. Traditional Students Who Received the Print Scenario: Table 6 Noticeable Variances.

In a further assessment of traditional and non-traditional students' Likert data separated this time by group, a few other potentially promising, albeit statistically non-significant, variances emerged. For traditional students, the print scenario apparently screened and framed information that allowed respondents to express greater confidence in their ability to recognize when and why nurse-physician communication enhances inter-professional respect in the ICU and why RN-MD communication diminishes such interdisciplinary respect. Traditional students who received the print narrative also expressed greater post-intervention confidence in their ability to communicate with shift nurses about a patient's objective signs and to learn through lectures. Those trends in variance support the previous assumption that, for traditional print recipients, the dialogue, action, and setting in the transcript effectively screened and framed contextual as well as factual information for those designated outcomes. Moreover, traditional print recipients may be indicating a preference for learning through a combination of literacy strategies (reading the print narrative) and orality strategies (learning by hearing the spoken words of lecturers). Ong's (1988) arguments about the respective benefits and strengths of orality and literacy may help to interpret those putative findings if they are replicated in future research.

Alternately, there was a negative trend in variance for traditional students' confidence in their ability to recognize why nurse-physician communication enhances patient care and patient safety. Apparently, with regard to those designated outcomes, reading did not help the younger traditional Nursing students to experience a Burkean identification with the interaction between the scenario nurse and physician. Also, it is conceivable that the limited or, in some cases, non-existent clinical experience of the traditional nurses at the time of the study contributed to their reduced ability to recognize why nurse-physician communication enhances patient care and patient safety in the ICU. Possibly, traditional students' relative lack of clinical experience trumped the rhetorical ability of the print scenario to engage respondents' in an imagined identification with the scenario interlocutors regarding patient care and safety. It would be interesting to see how traditional nurses might respond to the print scenario in a repeat study, after they have had at least one full year of experience in a clinical practicum.

b. Traditional Students Who Received the Video Scenario: Table 7 Noticeable Variances.

Traditional students who received the video scenario demonstrated noticeable but statistically non-significant positive variance for the ability to learn by reading and by viewing videos. Conceivably, like their print counterparts, traditional students who

watched the video narrative may have indicated a preference for learning through a combination of literacy strategies (reading print and/or web based texts) with orality strategies (viewing digital multimedia). Ong's (1988) arguments about the relationship between orality and literacy may help to elucidate those putative findings if they occur in future research.

Conversely, traditional video recipients indicated less post-intervention confidence in their ability to communicate with shift nurses about a patient's objective and subtle signs and symptoms and their ability to learn by talking with colleagues. Conceivably, the media framing effects of the video reminded traditional students of their relative lack of experiential knowledge in those areas. Considering Scheufele's (1999) views about the interactivity of media and audience frames, a dissonance or disruption may have occurred between the video's media frames and the audience frames of traditional students who watched the video. That supposition also may warrant further investigation.

c. Non-Traditional Students Who Received the Print Scenario: Table 8 Noticeable Variances.

Although not statistically significant, non-traditional students who read the print narrative expressed greater post-intervention confidence in their ability to learn by reading and thus, presumably, to gain greater analytical comprehension and recall of textual (factual)

and contextual (relational) information in the print narrative. Interestingly, that noticeable trend in variance did not appear in the combined data for traditional and non-traditional students who received the print scenario. This suggests that future literacy strategies may prove effective for the non-traditional group of RN-BS students. That preference for learning by reading is supported by some of the free writing data. Ong's (1988) observations about the relative benefits of literacy may help to explain that finding if it occurs among non-traditional print recipients in a larger study.

d. Non-Traditional Students Who Received the Video Scenario: Table 9 Noticeable Variances.

Many more noticeable variances occurred for non-traditional students who received the video narrative. There is a caveat, however. That quantitative group had the smallest sample size of all the groups summarized here. Thus, the following noticeable trends in variance may carry less value for future investigation. Still, they are worth mentioning, since some of those trends are directly or indirectly reflected in the free writing data.

Non-traditional students who watched the video narrative expressed greater post-intervention confidence in their ability to recognize when nurse-physician communication diminishes patient care and when RN-MD communication obstructs patient management. Those trends suggest that the media effects of the video allowed

non-traditional RN-BS students to become situated in exigencies that reflected real-job situations that they or their workplace colleagues have encountered. Conceivably, those effects could have occurred because salient issues involving patient care and patient management were framed effectively by the video. Here, prior work by Entman (1993) on the framing effects of salience and Scheufele (1999) on the media effects of framing could be helpful in exploring those findings if they occur in a larger study. Non-traditional video recipients also expressed greater confidence in learning by listening to lectures, echoing earlier observations about the ability of the video to activate cognitive learning abilities rooted in orality -- the cognitive agencies involved in hearing, recalling, and interpreting the spoken words of others.

Conversely, non-traditional video recipients expressed lesser post-intervention confidence about recognizing why nurse-physician communication enhances or diminishes patient care, why nurse-physician communication obstructs patient management, and learning by talking with colleagues. Those are somewhat surprising findings, given RN-BS students' typically greater experience in the clinical workplace, and given the positive trends in variance mentioned above. It raises an interesting research question: If those data are replicable, why would the video increase the ability of RN-BS students to discern when nurse-physician communication negatively affects patient care and patient management – but not why those communications affect patient

care? As indicated earlier, the negative trend in variance among non-traditional video recipients regarding learning by talking with colleagues supports a similar finding in the all-group analysis of responses to the video scenario. Those findings also raise an interesting question for follow up research, perhaps with focus groups: For these study participants, why would conversation with colleagues represent a lesser form of learning about the dynamics of nurse-physician communication?

3. Possible Causes for the Absence of Statistical Significance in the Likert Data.

The absence of statistical significance in the Likert pre- and post-intervention surveys apparently results from the small sample size for the two groups under investigation: print vs. video recipients and traditional vs. non-traditional students. Other reasons, however, might account for the insufficient variance and corresponding homogeneity of perception reflected in the quantitative data:

a. It is conceivable that study participants were united in their concern over how the scenario nurse was addressed and demeaned regardless of whether that depiction was conveyed through print or video. Perhaps study participants also were united in their concern about the harm to patient care and patient safety that can result from ineffective nurse-physician communication.

Put another way, the disruptive behavior of the scenario physician could represent an actual or potential exigency for all Nursing students who participated in the study, and the common awareness of that exigency may have trumped any significant differences between print and video recipients, e.g., differences that pertain to knowledge generated by literacy versus orality and multimodality, and any significant distinctions between traditional and non-traditional students, e.g., differences in age, educational background, and professional clinical experience.

b. In general, study participants were in agreement about when and why communication breakdowns occur among nurses and physicians. But they were not asked about, and thus did not reflect about, how to prevent such communication breakdowns. For example, participants were not asked to read or reflect on the potential benefits of using the SBAR communication tool. Asking students to read and respond to a recent SBAR study could add potentially valuable data regarding student perceptions of *how* to prevent the kind of communication breakdown illustrated in *Of Lions and Lambs*. The potential implications and usefulness of the SBAR communication tool for follow up research are discussed later in this chapter.

c. Perhaps greater variance might occur if the dissertation study included a scenario that addressed other causes of ineffective nurse-physician communication, e.g., the second and third determinants identified by Robinson, Gorman, Slimmer, and Yudkowsky (2010) in their focus group study conducted in a Chicago teaching hospital: "making someone less than, dependence on electronic systems, and linguistic and cultural barriers" (p. 209). In that investigation, "dependence on electronic systems" referred to over reliance on technology at the expense of in-person communication.

d. Greater variance also may occur by asking students across clinical disciplines to reflect on any gender related or discipline specific biases in the print and video narratives.

e. Finally, greater variance may result from altering the study to include a convenience or random sample of Nursing students and students in the Health Professions, Medicine, and/or Pre-Medical studies.

Interestingly, the homogeneity of perception in the Likert data regarding the gravity of counterproductive nurse-physician communication also appeared in the qualitative data. In the free writing data, however, some variability occurred with regard to student perception of factual information in the print scenario versus student perception of contextual cues in the video scenario. Moreover, the free writing data included various rich features for an inductive discourse analysis of respondent's perceptions about the

relationship of nurse-physician communication to patient care and patient safety, as indicated in Table 10 and Table 11. The implications of those qualitative findings are addressed below.

Part B. Discourse Analysis: Rhetorical and Health Communication Implications of the Free Writing Data. Speculations about the Framing Effects of the Print and Video Narratives.

The following interpretations focus on patterns of significance in students' free writing data that provide a basis for speculating about the screening and framing effects of the print and video narratives. The qualitative arm of the study included a focus on situated dialogic learning regarding determinants of effective nurse-physician communication. Whether traditional and non-traditional students received the print or video scenario, a clear pattern among respondents is evident across qualitative surveys. As indicated by the free writing data summarized in Tables 10 and 11, members of each group of study participants recognized that improved nurse-physician communication can enhance patient care and safety. Members of each study group were distressed by the disruptive behavior of the physician and its subsequent impact on the nurse. Members of each study group assigned accountability for the communication breakdown to the scenario physician and nurse, albeit with more empathy for, and identification with, the nurse.

Thus, irrespective of groups, students who completed the first post-intervention qualitative survey expressed general agreement about the following (paraphrased) perceptions:

- The patient's needs and well-being would have been better served by more competent inter-professional communication.

- Both doctor and nurse were wrong. The nurse's communication and the communications of nurses on the previous shift should have been more precise and verifiable. The late night phone call to the doctor could have been avoided if (a) nurses on the prior shift had noted in the patient's chart that they had phoned the physician about the changing creatinine value, or (b) the scenario nurse had interpreted the changing lab value within the larger context of the patient's admitting diagnosis.

- Although he was awakened late at night with information he had already received and thus had reason to be annoyed, the doctor's demeaning and abusive attitude and behavior were unacceptable and counter-productive within the larger context of maintaining effective lines of communication in order to provide collaborative patient care.

- Arguably, the most important person in the respective scenarios, the patient, was absent from view in the video scenario, and for the most part, not central, to the nurse-physician conversation in either the print or video scenario. Rather, the respective narratives reflected inefficiencies in charting and dysfunctional communication associated with inequalities of role and power among clinicians in a high stress acute care exigency.

- Student perceptions from the first post-intervention qualitative survey support a rationale for combined print and multimodal strategies to teach inter-professional health communication and team work strategies to students across clinical disciplines.

Those impressions of the free writing data are interpreted below from the interdisciplinary perspective of health communication, rhetoric and composition in the health disciplines, and Nursing education and practice.

1. Speculations about the Framing Effects of Situatedness on Study Participants' Perceptions.

Goffman's (1974) observations about message framing, keying, and transformation in theatrical performances suggest that dramatizations are rhetorical places where actors and

audiences meet in order to negotiate message framing and reception—and thus to negotiate meanings associated with those communication exchanges. That dynamic helps to explain the free writing responses of various study participants who noted or referred to the tone of the interlocutors' remarks and the attitude conveyed by that tone -- or as Goffman might say, the emotional keying of the dramatization and its consequential ability to transform an audience's perceptions, understandings, and interpretations. Goffman also suggested that the framing agency of theater situates an attentive audience within the action of the play by engaging viewers' imagination, thoughts, and emotions.

The free writing data suggest that study participants were, indeed, able to engage with, and become situated in, the video scenario. Interestingly, as noted above in the discussion of why the quantitative data lacked sufficient variance, print recipients in this study also were situated in the exigencies and ethical conflicts of the transcript scenario, suggesting that the special nature of the conflict—involving exigencies and transactions that study participants could encounter, or have encountered, on the job—potentiated the necessary scene-actor-audience agency for readers and viewers in the respective study groups.

From a Burkean perspective (and thinking of Burke's arguments about literature-for-use in the rhetorical analysis of motives in literary works), the print and video scenarios *for Of Lions and Lambs* could be considered narratives-for-use in explicating representative actions and motives in some types of nurse-physician communication breakdowns. Seen in that light, the print and video narratives reflect Burke's scene-agent ratio, where the actions of characters imagined or real are shaped, to a large extent, by the elements, conflicts, and contradictions of the setting in which they find themselves. Within those speculative contexts, the print and video narratives served as terministic screens to filter certain perceptions about nurse-physician communication while deflecting other perceptions. *Of Lions and Lambs* might be perceived as suggesting that the inter-professional conflicts depicted in the scenarios are inevitable and un-preventable. In fact, as some of the free writing data imply, the print and video scenarios were springboards for various students to reflect about why the late night phone call was dysfunctional, as a first step toward assessing how to prevent such communication breakdowns.

2. Speculations about the Framing Effects of Salience on Study Participants' Perceptions.

Entman (1993) argued that framing theory allows scholars to "describe the power of communicating texts" (p. 93) and that potency is most evident in the way messages frame salience for readers and audiences. That view echoes Burke's (1969) observations about

the ambiguous agency of literary texts to reveal character motivations that, in turn, can effect attitudinal or behavioral changes in readers--changes that can contribute to, or obstruct, identification and consubstantiation among individuals and groups. Entman's (1993) arguments about salience as a principle effect of framing seem relevant to the free writing data in this dissertation study. Those data suggest that the print and video scenario activated "existing schemata" (Entman, p. 53) in the individual belief systems of respective study participants.

For traditional and non-traditional study participants, the scenarios apparently foregrounded the power imbalance between the scenario nurse and physician that permitted the subsequent disruptive communication, rather than foregrounding the need to ensure patient safety.

3. Speculations about the Framing Effects of Emotion on Study Participants' Perceptions.

Research by Nabi (2003), Arpan and Nabi (2011), and Lauchner et al (2011) elucidated the framing effects of emotion in print and broadcast reports about various topics in healthcare practice or policy. Research by Namkoong, Fung and Scheufele (2012) explicated the framing effects of emotion on news reports about a recent U.S. presidential

campaign. In each case, emotion acted as a powerful determinant of message reception in viewers or readers, with implications for audience decision-making. Those studies seem relevant to the framing effects of emotion on traditional and non-traditional students who received the print or video scenario. As noted earlier, although the framing effects of emotion were apparently strong for video recipients, some print recipients readily detected the intimidating and abusive effects of the physician's behavior on the scenario nurse, both of whom had worked for the hypothetical hospital for some years. As the rich features in Tables 10 and 11 indicate, those emotional framing effects generated considerable empathy for the scenario nurse among print and video recipients.

4. Speculations about the Framing Effects of Narrative Construction on Study Participants' Ability to Attribute Accountability.

Iyengar (1991) observed that an audience's ability to attribute accountability after watching broadcast news reports about a controversial political or social issue is selected or deflected depending on how information is framed in those news reports. Iyengar's research observations also seem relevant to this study. As the free writing data suggest, many respondents attributed blame for the communication breakdown primarily to the physician and secondarily to the scenario nurse and/or the nurses on the prior shift. A few respondents, presumably some of the more experienced RN-BS nurses, assigned

blame to the scenario nurse for her timidity and subsequent mistake in implementing a medication error without checking to be sure the physician's directive (communicated via illegible handwriting) had been interpreted accurately. Those perceptions by study participants may be attributed to how the print and video narratives framed the conflict between the scenario nurse and physician. Consider, e.g., that in each narrative the physician's voice is the angriest, and in the video scenario, the doctor's voice is the loudest. Also, the physician's comments are laced with sarcasm, while the nurse's comments reflect uncertainty, apprehension, and growing resentment. Moreover, in the video scenario, the physician occupies center stage more often than the nurse and, thus, presumably a greater part of the audience's attention.

Likewise, the observations of Pan and Kosicki (2001) seem relevant to this study, in particular, their arguments about how framing in TV talk shows can manipulate political performances by blurring the role of the audience (at one point passive observers, at another point active participants), thus problematizing and confusing an audience's ability to understand and interpret political disputes. To a lesser extent, this presumably occurs for print and video recipients when the scenario nurse and physician alternate between addressing each other and addressing the audience, in effect, inviting the audience to enter into the cognitive and emotional conflicts of the narratives. (Goffman's views about the framing effects of theater are also reflected here.) That blurring of

boundaries between actors and audience in *Of Lions and Lambs* results in a portrayal of, and a perception of, the nurse as the primary victim -- until the very end of the respective scenarios, when it becomes clear the patient was primarily victimized by the medication error that resulted from the dysfunctional physician-nurse communication. The rhetorical effect is to engage readers and viewers in attributing responsibility for the ethical consequences of the communication breakdown, in effect, to invite viewers to identify with the scenario nurse, the scenario physician, or the patient.

5. Speculations about the Framing Effects of Orality and Literacy on Participants' Perceptions.

The free writing data suggest that most students preferred watching the video and hearing the exchange between the nurse and physician. A number of students mentioned the impact of hearing the tone of the spoken words. This finding echoes Ong's observations about the agency and ethos of orality, spoken language. Ong (1998) argued that the sound of spoken words often is the most effective medium of persuasion for individuals and societies in the everyday realities of the "human life world" (p. 43). Ong also argued that the agency of the spoken word is a primary conveyor of ethos in human communication and collaboration. In addition, orality conveys more nuance and context than written text, which helps to account for the ability of spoken language to provide contextual cues that are discernible or absent in printed language.

Ong’s views seem relevant to this study, given the qualitative data that suggest video recipients valued the opportunity to hear the exchange between the scenario nurse and physician and to see their gestures and other non-verbal cues—as well as the free writing comments from a few print recipients about their preference for seeing and hearing the video scenario as well as reading the print version. In the video scenario, the spoken dialogue apparently conveyed contextual information that helped study participants to identify and interpret the attitudes, beliefs, and values of the scenario nurse and physician. Thus, the free writing data suggest that the power of the spoken word to support or confound clinical ethos and, thus, to foster or obstruct empathy, trust, and communication is reflected in the video dramatization.

6. Speculations about the Framing Effects of Visual Rhetoric on Participants’ Perceptions.

Research observations by David and Richards (2008) are also relevant in interpreting the video scenario’s rhetorical effects on study participants, in particular, David and Richards’ observation that seeing precedes language as a form of human knowing, yet language is needed to bring visual awareness to conscious attention and reflection. So too is Allen’s (2008) observation that traditional Aristotelian insights about the rhetorical appeals of logos, pathos, and ethos can help writing students gain a better awareness of

the explicit and implicit rhetorical appeal of visualizations, in particular, appeals to emotion. The free writing data summarized in Table 11 and contained in Addendum B suggest that traditional and non-traditional video recipients reacted strongly to the highly charged emotional exchanges in *Of Lions and Lambs,* in particular, to the way in which the nurse's thoughts, actions, and motives were framed. From a Burkean perspective, one could argue that, in addition to being portrayed as an inadvertent victim of the abuse of physician power and authority -- as well as the incompetence of nurses on the previous shift -- the scenario nurse also was depicted implicitly as a real, as well as a rhetorical, scapegoat (Burke, 1969), a stand-in for the larger dysfunction of a healthcare bureaucracy that knows a significant communication-and-patient-safety problem exists but has taken insufficient action, nationwide, to resolve and prevent the problem. Within that context, the scenario physician's expressed wish to work with male nurses could be seen as a way to eliminate (destroy the influence of) the female nurse, i.e., the rhetorical and existential realities the scenario nurse represents. Likewise that wish, which the scenario physician expressed in a more calm reflective address to the audience, has a disturbing framing effect, as noted by some study participants.

For similar reasons, the observations of Helmer and Hill (2004) also apply to this discussion, in particular, their argument that audiences learn who they are by seeing themselves reflected in images. As the free writing data suggest, video recipients saw

themselves and/or their peers in the professional and ethical conflicts depicted in the video scenario. Interestingly, print recipients also were able to imaginatively see themselves in the conflict that unfolded in the transcript. Moreover, Tufte's (2006) argument that well-crafted visualizations can help an audience to interpret ambiguous action is an additional frame of reference for this analysis. The preference of all video recipients and some print recipients for the video scenario suggests that many study participants needed to see and hear the various contextual cues in the video scenario in order to interpret any ambiguities of intent or action by the scenario nurse or physician.

C. Flipping the Terministic Screens—Perspective by Incongruity

At the end of the video dramatization, the real nurse and real physician who wrote and enacted the mini-play -- Joseph Bujak, M.D. and Kathleen Bartholomew, R.N. -- step to the front of the stage and address the audience of healthcare executives and clinicians. Nurse-educator Bartholomew argues that improved nurse-physician communication is needed and long overdue. Physician-educator Bujak admonishes fellow physicians for allowing disruptive behavior to continue in health facilities. In effect, Bujak and Bartholomew enact an interdisciplinary and sociocultural frame disruption. From a rhetorical perspective, they flip the terministic screens (Burke, 1966) and the salience frames (Entman, 1993) in order to reflect agency back to the audience. They invite the audience to help create a new script, so to speak, for envisioning, expressing, and

mediating disciplinarity (Selber, 2010; Prior, 1998) in the clinical workplace, thus raising hope for new patterns and networks of inter-professional health communication in acute and critical patient care. By problematizing conventional notions (pieties) about communication practices in the clinical workplace, Bartholomew and Bujak engage the audience in perspective by incongruity (Burke, 1969). The intended result is a significant re-keying (Goffman, 1974) of the inter-professional conversation about the relationship between nurse-physician communication and patient safety, with a new lamination: Rather than "just" writing about the problem as they have done (Bujak & Bartholomew, 2012), a veteran physician and a veteran nurse dramatize a key communication exigency, drawing upon the agency of performative rhetorics to engage viewers in the life-and-death implications of communication dysfunctions in acute and critical patient care.

D. Sociocultural and Interdisciplinary Implications for Nursing Education

1. Potential Use of the SBAR Communication Tool to Defuse or Prevent Communication Obstacles Caused by Various Negative Determinants.

Many nurse-physician communication breakdowns nationwide may be due to factors other than disruptive behavior by a physician that affects the self-esteem and self-efficacy of a nurse.[1,2] Why focus in this interdisciplinary study on a hypothetical worse-case

scenario like the one illustrated in *Of Lions and Lambs*? There are two reasons:

(a) regardless of their incidence nationwide, disruptive exchanges like the one depicted in the print and video scenario represent a clear risk to patient care and patient safety (Rosenstein and O'Daniel, 2008) and

(b) lessons learned from a rhetorical analysis of a fictional worse-case scenario based on actual events can shed light on how to analyze and prevent communication breakdowns caused by factors other than the disruptive behaviors illustrated in *Of Lions and Lambs*, e.g., the negative factors that Robinson and colleagues (2010) identified -- over reliance on technological communication and misunderstandings due to differences in language or cultural conventions and expectations. One such prevention strategy is the use of the SBAR communication tool.

Bartholomew (2010) encouraged nurses and other clinicians to use the SBAR communication tool when communicating about patient management (SBAR = Situation, Background, Assessment, and Recommendation). The Institute of Medicine also has recommended the SBAR tool (Kesten, 2011). From a Burkean perspective, the SBAR communication tool can be considered a terministic screen that directs problem-solving attention toward the emergent needs of patients and away from any misunderstandings in clinical communication.

From a rhetorical and health communication perspective, the SBAR tool screens and frames patient information so that clinical logos, i.e., fact-based reasoning about a patient's changing status, is highlighted, thus reinforcing a clinical ethos that prioritizes patient care and patient safety. Pathos, or emotional information that could interfere with the communication exchange, is deflected.

While there is no silver bullet to remedy the exigencies and imbalances associated with increased patient acuity and persistent clinician shortages, the SBAR communication tool represents one potential strategy for screening and framing information in ways that account for the clinician-patient exigencies mentioned above. Thus the SBAR tool warrants further study as a method for focusing and streamlining communication, especially in cases of patient emergencies. As a message frame, the SBAR communication tool holds significant potential for reducing the kinds of confusion, miscommunication, and inter-professional conflict depicted in *Of Lions and Lambs* (Bartholomew, 2010). More research in various health settings across the U.S. is needed to confirm that potential and to identify which types of settings and inter-professional collaborations might benefit the most from SBAR protocols.

A Growing Consensus across the Cultures Of Medicine And Nursing Regarding Communication: Implications for Health Communication Rhetorical Studies.

As the SBAR literature and the preliminary free writing data in this study suggest, there is a growing consensus across clinical disciplines that inter professional education to improve clinical communication in acute and critical patient care is necessary. In addition to the factors that contribute to effective or ineffective nurse-physician communication identified by Robinson and colleagues (2010), discipline specific cultural factors may be at work. Medical students are likely to be enculturated into a highly technologized view of patient care (Groopman, 2007; Barber, 2005), and Nursing students are likely to be enculturated into a less technologized, more holistic view of patient care (Bartholomew, 2010). That said, researchers and practitioners across clinical cultures are working to bridge the gaps in communication that arise from competing views of clinical authority and patient care (McCaffrey et. al., 2012, Saxton, 2012, Burns, 2011, Bujak and Bartholomew, 2011; Kesten, 2011).

Their work reflects Burke's (1969) observations about the primary goals of rhetoric – to establish, if possible, identification and consubstantiation among individuals and groups, especially when interlocutors' are in disagreement and conflict. That rhetorical perspective also is applicable to data that emerged in both the quantitative and qualitative arms of the study.

In addition, the Burkean view of rhetoric's goal is reflected in nurse-educator Bartholomew's (2010) observation that "In the end, improving communication with physicians is about creating an equal partnership where both parties respect and trust the roles each play in patient care" (p. 22). Those rhetorical exigencies, in turn, help to establish the grounds for arguing that health communication rhetorical studies can shed light on strategies to enhance inter-professional clinical communication. Such studies represent a promising new line of interdisciplinary research in the health sciences and the clinical humanities.

E. Implications of the Study for Acute and Critical Care Nursing

The greater acuity of patients in many health facilities today, coupled with the nationwide shortage of nurses (Aiken, 2011) and, in some cases, the regional shortage of physicians, has added significant burdens on the expertise, energy, and time of nurses and physicians in many health facilities nationwide. Those pressures may aggravate or surface counter-productive communication patterns and practices which, in turn, can provide opportunities to identify and revise behaviors and beliefs that contribute to, or obstruct, effective communication in the clinical workplace. It is possible that differences in the occupational training and cultures of Nursing and Medicine account for some modifiable and preventable nurse-physician communication breakdowns. Physicians are

increasingly trained to focus on the science of patient care, while nurses are more likely to be trained in more holistic approaches to patient care; also, nurses tend to spend more time with patients and their caregivers, thus learning invaluable information through non-clinical, often personal, conversations. Each form of professional training and practice creates and constitutes a specialized view of patient advocacy, yet too often those views – those inter-professional rhetorics and message frames – compete in the daily realities of patient care.

Put another way, the rhetorics involved in the science of patient care and the practice of patient advocacy are promising areas for Burkean analysis in the hope of finding a common rhetorical ground, the kind of consensus view that is absent in *Of Lions and Lambs*. More research is needed to determine the respective contributions of nurse-physician occupational and cultural differences to inter-professional message framing and message reception in acute and critical patient care.

The Framing Effects of Autonomy

Bujak (2008) noted that autonomy is a key trait among physicians, and the hierarchal career training that physicians receive can predispose them to distrust the input of others who have not undergone similar educational experiences. His work in co-authoring and

co-enacting *Of Lions and Lambs* problematizes that disciplinary view of physician autonomy and its impact on inter-professional clinical communication. From a Burkean perspective, the over reliance on physician autonomy could be considered a trained incapacity, and the dramatization, *Of Lions and Lambs*, can be interpreted as perspective by incongruity. Given those realities, and depending on the health facility and the prior education and training of clinicians, individual physicians may need to learn more about the scope of Nursing practice available in their hospital or clinic, especially the scope of practice and other capabilities of nurses trained at the Master's and Doctorate level, -- as well as APRN nurses and RNs educated in universities across the U.S. where, today, nurses with a Bachelor's degree are trained for a greater range of professional duties than in the past.

Military medical units, in particular, those that have served in Iraq, Afghanistan, and other war torn areas (Whitcomb and Newell, 2008), may be optimal models of nurse-physician scope of practice integration and related inter-clinician communication, given the high level of inter-professional integration such units must have in order to function effectively. Individual nurses may need to seek additional training at the APRN, M.S. or Ph.D. level (Aiken, 2011) to achieve work relationships of equilibrium that are free of communication misunderstandings and disruption. For physicians and nurses who have not yet used the SBAR communication tool, training in the effective, adaptive use of that protocol may be helpful.

F. Potential Relevance of the Study for the AACN's Healthy Work Environment Assessment [3]

The free writing data from the traditional and non-traditional students who received either the print or video scenario appear to reflect salient categories in the American Association of Critical Care Nurses' *Healthy Work Environment Assessment* for nurses in U.S. health facilities, thus suggesting that participants in this empirical study related the respective treatment scenarios to communication realities and exigencies in the clinical workplace. The AACN *Healthy Work Environment Assessment* was not included as a reading assignment in the study, although it is conceivable that students in the Spring 2011 semester had encountered the survey in other courses. In particular, the student free writing data in this empirical study reflected direct or indirect awareness of the following eight categories in the *Healthy Work Environment Assessment (AACN, 2012):*

- *Administrators, nurse managers, physicians, nurses and other staff maintain frequent communication to prevent each other from being surprised or caught off guard by decisions.*

- *Administrators, nurse managers, physicians, nurses, and other staff make sure their actions match their words—they "walk their talk."*

- *Administrators, nurse managers, physicians, nurses, and other staff members speak up and let people know when they've done a good job.*

- *Nurses and other staff feel able to influence the policies, procedures, and bureaucracy around them.*

- *The right departments, professions, and groups are involved in important decisions.*

- *Nurse leaders (managers, directors, advanced practice nurses, etc.) demonstrate an understanding of the requirements and dynamics at the point of care, and use this knowledge to work for a healthy work environment.*

- *Administrators, nurse managers, physicians, nurses, and other staff have zero-tolerance for disrespect and abuse. If they see or hear someone being disrespectful, they hold them accountable regardless of the person's role or position.*

- *When administrators, nurse managers, and physicians speak with nurses and other staff, it's not one-way communication or order giving. Instead, they seek input and use it to shape decisions.*

G. Implications of the Study for Developing New Media Pedagogies in Nursing Education

The multimodal richness of digital communications can suggest new ways of seeing, interpreting, and problem solving for students across clinical disciplines. Digital writing and communication may help clinical students to learn how to communicate effectively about patient status in acute and critical care settings. In particular, new media creations may help to educate clinical students about emerging best practices in nurse-physician communication, e.g., why, when, and how to use the SBAR communication tool effectively. Such new media pedagogies -- e.g., websites, eBooks, and mobile phone modules -- hold potential for engaging clinical students in a wide range of reflective, analytical, and interactive activities that involve reading and writing, visual and aural/oral communication, role playing and other performative rhetorics that bridge the pedagogical gap between the humanities and the health sciences and, in the process, increase students' awareness of the essential role of verbal and nonverbal communication in acute and critical patient care.

As indicated earlier, Bolter and Grusin (2000) implied that new media creations are digital terministic screens that are activated by cybernetic as well as symbolic multimodal action that, in turn, can engage viewers in the three dimensional agency and wonder appeal of new media.

That interactive agency is the strongest argument for the development of new media creations to teach health communication principles and practices, in particular, new media creations that allow clinical students to explore and interpret narratives that can foster identification and consubstantiation among clinical groups with competing interests and needs.

Also relevant to this analysis is Goffman's (1974) argument that primary and secondary frames interact and re-shape each other through keyings and transformations. In this study, the primary frame is the print and video scenario, and the secondary frames are the quantitative and qualitative responses of students, in particular, their free writing comments. If this study were repeated with larger sample sizes – and with an interactive addition to the study design, e.g., the ability of participants to re-write the print narrative or re-direct the video narrative in order to diagnose, treat, and resolve the communicational dysfunction – a significant keying and transformation of primary and secondary frames could occur. Those objectives may be attainable with properly designed, interdisciplinary new media pedagogies that combine print and multimedia elements to engage learners visually, aurally, dialogically, and kinesthetically. Addendum C outlines preliminary plans for a sample interactive course that contains a new media module to teach inter-professional communication to students in Nursing and Medicine.

Seen from the perspective of health communication, such new media creations may become electronic artifacts for studying the media effects of nurse-physician narratives on clinical audiences, possibly drawing upon research concepts of Scheufele (1999), who suggested that research on the interactive effects of media frames and audience perceptions – the interplay of message framing and message reception in visual media – can shed vital light on how knowledge, attitudes, and values are shaped and altered in viewers.

Of Lions and Lambs could be considered a narrative for gaining a better understanding of clear and ambiguous motives that shape and re-shape nurse-physician communications in acute and critical patient care. As a form of symbolic action, such narratives are bio-psycho-social screens for assigning meaning to real-life activities that generate controversy. In turn, those interpretations generate a need to interpret and harness competing discourse for a perceived common good.

Seen from the perspective of rhetoric and composition, new media narratives in health communication can provide a rich springboard for reflective writing about issues in health communication, thus contributing to the ongoing research conversation about the epistemic and pragmatic role of writing in college education (Reiss, Selfe, & Young, 2008; Young, 2006; Bazerman et. al., 2005; Wysocki et. al, 2004; Emig, 1977).

Such narratives-for-use can harness the power of orality (Ong, 1988) to make or reveal new knowledge in clinical exchanges characterized by rhetorical kairos and agency. Potential topics for health eBooks for professional audiences include ways to improve the integration of bioterrorism education into Nursing school curricula in order to improve the preparedness of U.S. nurses who are likely to be first responders in a bioterrorism outbreak (Steed, Howe, Pruitt, & Sherrill, 2004), ways to enhance inter-professional communication and team building among neonatal intensive care clinicians (Brown et. al., 2003), ways to further interdisciplinary communication among cancer care clinicians (Ancker et. al., 2009), and many other salient topics in clinical education.

Potential topics for health eBooks for public audiences include ways to increase exercise and physical activity among school children in the U.S. (Singh et. al., 2012), ways to educate American youth about the health hazards of androgenic steroid use (Denham, 2009; Denham, Hawkins, Jones & Billings, 2007), and many other salient topics in public health. In each possibility for eBook design -- whether communicating with professional or public audiences -- consideration could be given to incorporating MOO-related strategies (Haynes, 2007) into eBook assignments, with the goal of replicating real time, peer-to-peer interactions that occur in the professional workplace, thus preparing clinical students for future interdisciplinary team work.

Such multimedia WAC/WID assignments also would reflect the principle of human centered information design (Cooley, 1999). The eBook assignments, in turn, could contribute data for mixed methods research in multimedia rhetoric and composition in the health sciences, generating new research questions across the curriculum, including perhaps the following:

1. Can WAC/WID assignments that involve the collaborative creation of multimedia health eBooks enhance interdisciplinary education, communication, and teamwork among students across clinical disciplines, e.g., students in Nursing, Primary Care Medicine, Physical Therapy, and Occupational Therapy?

2. Can multimedia health e-Books created by students across clinical disciplines persuade and educate public audiences about strategies to reduce risk factors for preventable diseases?

3. What role might humorous narratives (Bennett, 2003) play in creating the potential for identification and consensus in healthcare settings?

4. What role might the textual and performative rhetorics of storytelling play in creating that Burkean potential (Sorrell, 2001)?

5. Might the collaborative efforts of Nursing and Medical students to create open ended interactive narratives, perhaps in the form of eBooks, help to create a common pedagogical ground to learn about, problematize, and help to resolve issues that arise from the conflict between science of care and patient advocacy perspectives?

Studies in rhetoric and composition in the health disciplines represent a potentially productive forum to analyze the media effects of health message frames, including message frames that contribute to, or obstruct, effective nurse-physician communication in acute and critical patient care. Permitted, in large part, by advances in digital technologies, such interdisciplinary pedagogical experiments warrant further consideration.

H. Limitations of the Current Empirical Study

The study is limited in the following ways: Subjects were not randomly selected, and the sample size was too small to generate statistical significance for the Likert data. Data were obtained from two classes only. The scenarios, from start to finish, portray the physician as unreasonable and intolerable and the nurse as timid and unsure of herself.

However, those dynamics may not account for many nurse-physician communication breakdowns (Robinson, Slimmer, Gorman, & Yudkowsky, 2010). Other factors may be at work when communication falters. Focus group research is needed to identify and clarify those kinds of research issues – and how best to translate research findings into new hybrid pedagogies for health education in the digital era. In addition to the SBAR communication tool, other strategies to improve nurse-physician communication should be evaluated from the dual perspective of health communication and rhetoric and composition in the health sciences.

I. Recap of Study Conclusions as a Basis for Future Research

Based on the data assembled for this study, I conclude that the print and video narratives acted as screens to filter information that framed respondents' perceptions. Did the script differ from the video in terms of effect on student perceptions about factors that contribute to effective versus ineffective nurse-physician communications? I conclude that the print and video narratives had marginally different perceptual effects on traditional and non-traditional students with regard to factors that contribute to effective versus ineffective nurse-physician communication. For the most part, traditional and non-traditional students who received either the print or video narrative were distressed (if not indignant) at the portrayal of professional incompetence and disrespect in *Of Lions and Lambs*.

Most students faulted the physician for a lapse in professionalism and inter-professional courtesy and respect, although a few (presumably more veteran non-traditional) students also faulted the scenario nurse for a lack of Nursing acumen and professionalism.

I speculate that study participants' perceptions also were shaped by their individual experiences and the particular expertise and experience each respondent brought to her or his analysis and discussion of nurse-physician communication exigencies in the clinical workplace. Because the majority of respondents were female (one male Nursing student participated in the study) the data primarily reflected the opinions and experiences of female Nursing students.

I also conclude that the video narrative generated a more contextual analysis, and the print narrative generated a slightly more fact-based analysis of the scenarios, as suggested by students' free writing comments.

Moreover, participation in the study prior to reading the journal article on factors that contribute to, or obstruct, nurse-physician communication in a teaching hospital (Robinson, Slimmer, Gorman, & Yudkowsky, 2010) appears to have informed students' interpretation of the article and its relevance to the ongoing educational discussion about the relationship between inter-professional clinical communication and patient safety.

Thus, the quantitative and qualitative arms of the empirical study apparently acted to screen and frame information that, in turn, directed students' attention to, and informed their understanding of, key factors that can enhance or obstruct effective nurse-physician communication in acute patient care, as discussed by Robinson and colleagues.

This study also suggests a role for combined print and video pedagogies to teach and assess effective-versus-ineffective nurse-physician communication in acute patient care. More research is needed to confirm those preliminary findings and to determine how best to use traditional and new media strategies to teach inter-professional health communication to students across the clinical disciplines. More research also is warranted to determine which types of health related narratives might best help to bridge interdisciplinary cultural and communication gaps.

Moreover, if findings in this preliminary study are replicable, they may help to clarify a role for writing and visual communication in continuing education seminars on inter-professional communication in hospitals and other health facilities. Such seminars could include practitioners from across the curriculum in Nursing, Medicine, and the Health Professions. More research is needed to determine how best to combine traditional and new media assignments for those pedagogical purposes.

Hopefully, preliminary findings from this rhetorical analysis of student perceptions regarding nurse-physician discursive practices in acute patient care -- as reflected in *Of Lions and Lambs* -- will contribute to efforts of healthcare researchers and educators who are building a database of information on communication practices that foster, or inhibit, inter-professional collaboration in health facilities (Bujak & Bartholomew, 2012, Dickson & Flynn, 2012; Saxton, 2012; Hackbarth & Boccuti, 2011; Kesten, 2011; Wanzer, Wojtaszcxyh, & Kelly, 2009; Rosenstein & O'Daniel, 2008).

Such interdisciplinary research may lead eventually to a consensus view among health professionals about best practices for teaching and implementing effective inter-professional communication in acute care and critical care settings.

Endnotes

1. The gender-oriented verbal abuse and the abuse of power depicted in *Of Lions and Lambs* represent one type of disruptive behavior that can occur in health facilities. So too is the depersonalizing anonymity that is imposed on nurses by physicians who work with them but do not learn their names (Bujak and Bartholomew, 2012). As Saxton (2012) suggested, other factors can disrupt communication in the clinical workplace, e.g., obscene remarks, implicit or explicit physical or sexual harassment, and racial or ethnic insults. Saxton (2012) noted that

> The American Medical Association's Council on Ethical and Judicial Affairs defines disruptive behavior as behavior that "tends to cause distress among other staff and affect overall morale within the work environment, undermining productivity and possibly leading to high staff turnover or even resulting in ineffective or substandard care. (p. 603)

2. The annual frequency of disruptive behaviors by physicians in U.S. health facilities remains an open question. Non-generalizable data from various studies involving different methodologies suggest that disruptive behaviors are not uncommon in the health facilities where the studies occurred. In literature reviews for their publications, Saxton (2012) and Bartholomew (2010) cited numerous local studies in which a high percentage of nurses and physicians, often from different clinical subspecialties, reported witnessing on-the-job disruptive incidents. In some of those studies, patient safety was affected by "Failures of communication … attributed to conflicts of power, role, and personality." (Saxton, 2012, p. 604).

In his survey of physician leaders at selected U.S. health facilities, Weber (2004) reported that most respondents were very concerned about disruptive behavior by some doctors in their health facilities. Likewise, there is little documented evidence to suggest that the positive factors for effective nurse-physician communication identified by Robinson and colleagues (2010) in their teaching hospital are operational nationwide.

The literature on physician disruptive behavior suggests that the frequency and form of disruptive behaviors varies, depending on the health facilities that are surveyed. Verbal abuses apparently occur more often in stressful patient care settings, e.g., in perioperative situations, potentially resulting in medication errors (Saxton, 2012). The SBAR communication tool is one potential way to defuse or prevent such disruptions (Bujak and Bartholomew, 2012, Kesten, 2011).

3. I thank Dr. John J. Whitcomb, Assistant Professor in the Clemson University School of Nursing, for his considerable help with obtaining the AACN's *Healthy Work Environment Assessment* and interpreting the relevance of survey items for this empirical study.

Figure 1. Information Concerning Participation in a Research Study. Clemson University.

Title of the Research

Message Framing and Message Reception in the Intensive Care Unit: An Inquiry Into the Role of Writing and Visual Communications in Nursing Education.

Description of the Research and Your Participation

You are invited to participate in a health communications and pedagogy study conducted by Dr. Bryan E. Denham of the Department of Communication Studies, Dr. Rosanne H. Pruitt, Director of the School of Nursing, and Mr. John D. Dinolfo, Ph.D. student in Rhetorics, Communication, and Information Design (RCID).

The research is designed to assess the role of writing and visual communications in the education of Nursing students who are interpreting and applying the concepts of message framing, message reception, and team identity-building to nurse-physician interprofessional communications in the Intensive Care Unit.

Participation in this research will involve all of the following activities:

1. Complete a pre- and post-survey in Blackboard in March.
2. Interact with, and reflect on, a print and/or video ICU nurse-physician scenario in Blackboard in March.
3. Read two journal articles and complete a qualitative survey for each article in Blackboard in April.

Altogether over a period of weeks in March and April, participation in the study will require an estimated 6 to 10 hours as follows:
An estimated 3 to 4 hours to complete data assessment.
An estimated 1 to 2.5 hours to interact with and reflect on the print and/or video scenario(s)
An estimated 2 to 3.5 hours to read two journal articles and to complete a qualitative survey for each article.

Risks and Discomforts

There are no known risks associated with this research.

Potential Benefits

Participants may benefit by learning more about (a) communications dynamics among ICU nurses and physicians, (b) characteristics of ineffective nurse-physician communication in the ICU, and (c) characteristics of effective nurse-physician communication in the ICU.

Incentives

Extra Credit Option 1: Full participation in the health communications-and-pedagogy study as described above will earn an automatic five points toward the final score (grade) in the course.

Alternatives to Research Participation

Extra Credit Option 2: Write an essay in APA format of at least five double-spaced pages (in addition to a cover page) for five automatic points toward the final score (grade) in the course. The essay will interpret and critique one journal article assigned after midterm.

Option 3: You can decline to participate in both extra credit activities summarized above.

Protection of Confidentiality

We will do everything we can to protect your privacy. Survey responses will be kept confidential and will be grouped for analysis and evaluation. Your identity will not be revealed in any publication that might result from this study.

Voluntary Participation

Your participation in this research study is entirely voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact Information

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Bryan E. Denham at Clemson University at bdenham@clemson.edu.

If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-6460 or irb@clemson.edu.

If you are outside of the Upstate South Carolina area, please use the ORC's toll-free number, 866-297-3071.

Consent

I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study.

Participant's signature: ____________________________________ ____ Date: _________________

A copy of this consent form will be given to you.

APPENDICES

Addendum A: **Free Writing Data for Discourse Analysis. Print Respondents. First Post-Intervention Qualitative Survey.** [1]

Survey Question 1. What do you find most meaningful about patient status and why? Analysis of free writing data in responses 1-12.

1. An awareness of the clinical logos or reasoning regarding the patient's renal failure and the changing lab value apparently helped to frame this respondent's perceptions. *"The diagnosis of renal failure, the lab value of creatinine, the previous lab value of creatinine. The only thing that I believe should have been discussed is the communication does not include the signs and symptoms the patient may be exhibiting."*

2. An ethic of patient care apparently helped to frame this respondent's perception. *"Patient status is where the nurse focus their attention."*

3. An awareness of the clinical logos or reasoning regarding the patient's renal failure and the changing lab value, plus embarrassment at the Nursing omission, apparently helped to frame this respondent's perceptions.

"In the first situation, the patient was admitted in renal failure with a creatnine of 5.2, the subsequent critical lab was 3.8, which was improved. In the next situation, the patient had acute bronchitis. The MD had written for prednisone but it was unclear and translated as progesterone. As a nurse, I'm a little embarrassed to say that if the RN had taken time to look at the whole picture...admitting diagnosis, preveious labs, meds, etc....the scenerio would probably have had a different outcome or been avoided altogether." (sic)

4. An awareness of the necessity and efficacy of documentation, an ethos of mutual inter-professional trust, and frustration that such trust is not reflected in the RN-MD narrative apparently helped to frame this respondent's perceptions:

"The most meaningful thing about patient status is the lack of communication between all the caregivers ... The known fact is "if its not documented than it has not been done"... I do not condone what the physician did. I do believe if the proper information was availiable and documented it would save future mistakes due to lack of communciation. Because the trust between the nurse and physician was broken, it will be harder for them to communicate efficiently in the future further jeoparizing patient care."

5. An awareness of the patient's renal failure as indicated by the changing creatinine value apparently helped to frame this respondent's perceptions.

"The nurses need and want to make sure that the renal status was correct due to renal failure earlier. Double checking the status of creatinine values was imperative to the health of the patient."

6. An awareness of the patient's renal status and a critical appraisal of the nurse's decision to phone the physician apparently helped to frame this respondent's perceptions.

"I think the nurses and the doctors should know the status of the patient when there is a drastic or critical change. In the first scenario the nurse should have known to check the diagnosis when she saw that the creatinine level was high because it indicates renal failure. There would be no need to call the doctor because the patients admitting diagnosis was renal failure and the patient's status was actually improving. The doctor should only be notified in the middle of the night if the patient's status was declining and something needed to be done by the doctor.

7. An awareness of the meaning of the changing lab value in relation to patient status and a critical appraisal of the fictional nurse's decision to phone the physician apparently helped to frame this respondent's perceptions.

"The patient's levels were abnormal but not abnormal fer her status. Her levels appeared to be getting better."

8. A pragmatic ethic of erring on the side of caution to support patient care apparently helped to frame this respondent's perceptions.

"I felt that in the print scenario, the patient status was put aside due to the lack of communication between the RN and physician. The most meaningful thing about patient status is to always err on the side of caution. It is important to be knowledgeable about the patient status so you are able to recognize when important measures should be taken.

9. A particular focus on the importance of the changing lab values apparently helped to frame this respondent's perceptions.

"Lab values; that is something that is pertinent when speaking to a physician about a patient's condition."

10. A particular focus on the importance of the changing lab values apparently helped to frame this respondent's perceptions.

"I find it meaningful that the patient status has changed. Even though the level of creatinine has changed from worse to better, I still feel that this number is a critical value. I think it was the right decision of the nurse to report the lab value. We have learned in class that if you do not document or report something, it is like that you have not done it at all."

11. An awareness of the clinical logos or reasoning regarding the patient's renal failure and the changing lab value, plus an ethos of identification and support for the RN, apparently helped to frame this respondent's perceptions.

"The most meaningful part of the patients status was the renal failure. Although the nurse knew the patient was in renal failure, she still felt that she needed to make the doctor aware of the high creatinine levels. The doctor was not very happy that the nurse called, but it was her job to make sure he was informed. The creatinine levels were high, although they were decreasing from the levels at the time of admission, they were still high."

12. An ethical concern for the life threatening complications of ineffective RN-MD communication apparently helped to frame this respondent's perceptions.

"A patients status is very crucial. If you give the wrong medications to patients, the results can be life threatening.

Survey Question 2: What did you find most meaningful about nurse-physician communication and why?

Analysis of free writing data in responses 1-12:

1. Empathy with the scenario nurse apparently helped to frame this respondent's perceptions.

"The hostility of the MD. Happens quite frequently. And some nurses are very afraid to talk to certain physicians because of that hostility. That does not mean the nurse is incompetent--it means the nurse is scared."

2. An ethos of Nursing competence and concern for the patient's wellbeing apparently helped to frame this respondent's perceptions.

"The most meaningful thing I learned … is that the physician did not believe the nurse was competent…. Also, the physician believed he would love to have a competent nurse but doesn't believe the hospital has any. The physician states how 2 year degree nurses are only JACHO enforcers. The nurse now has a decrease in confidence and feels uneasy to notify the physician if another problem occurs. This breaks the line of communication and could further decline the patient's care."

3. An ethos of Nursing competence and patient safety apparently helped to frame this respondent's perceptions.

"… The nurse was doing what she thought was right, notifying of a critical lab, but had she reviewed the chart, she would have seen it was not a call that needed to be made, she had admitted to looking at the chart. The fact that the patient was admitted with Renal

Failure would have caused me to reveiw and compare labs, especially if I was questioning a lab done earlier that I wasn't sure if he was aware of. In the second situation, the nurse failed to call the MD, trying to figure it out herself because of the way the MD had treated her the week before .... The diagnosis didn't seem to be considered when trying to decipher the medication. As nurses, we have to protect our license and our patient at all times. Not calling a doctor when there is a question regarding a med is unexcusable if the reason is out of fear of being yelled at…"

4. A sense of fear and an ethos of patient care apparently helped to frame this respondent's perceptions.

"There was a lack of communication between the nurse and physician. The two definitely did not have a good relationship, and because of the intimidation the doctor put on the nurse, there could possibly be a lack of patient care in the future if the nurse is too afraid to call the doctor to ask or clarify anything."

5. An ethos of inter-professional respect and patient safety apparently helped to frame this respondent's perceptions.

"Detecting that there was a lack of respect between the nurse-physician relationship was one problem that arose. The nurse just wanted to make sure the patient's vitals were within normal range and was double checking the physician. However, the physician saw

this move as a lack of disrespect. Also, the lack of communication between the nurse and physician on the administration of the medications of progesterone for predinsone placed the patient's health at risk."

6. An ethos of inter-professional competence plus frustration motivated by the miscommunication in the RN-MD scenario apparently helped to frame this respondent's perceptions.

"the nurse was not straight to the point with information -the physician would not even let the nurse complete sentences and was very rude -this conversation between nurse and physician broke the lines of communication -the nurse did not call and clarify an order because of previous judgement by the physician -the physician did not admit to talking to the nurse the wrong way"

7. An ethos of inter-professional competence plus frustration motivated by the miscommunication in the RN-MD scenario apparently helped to frame this respondent's perceptions.

"I don't think the doctor should have been so rude [to] the nurse because she was only trying to do her job ... This could have easily been avoided ... They should work on their attitude towards each other and realized (sic) they are both trying to do their job which is to provide the best care to the patients."

8. An ethos of inter-professional competence and a critical appraisal of the conflict from each perspective apparently helped to frame this respondent's perceptions.

"I feel that the nurse was just trying to do what she felt was important. However, the nurse should have waited to alert the physician at a later time such as rounds. The levels were not critical for the patient's condition and it was not an emergent 0200 situation. The physician was rude in the way he handled the situation but had valid points in his concern with the handling of the results and the previous nurses (sic) communication."

9. Empathy with the scenario nurse, frustration regarding the scenario miscommunication, and an awareness of the power imbalance that can occur in real life RN-MD communications apparently helped to frame this respondent's perceptions.

"It was the action to a reaction. The result was bas because the communication was bad. I work in an OR with a surgeon who yells for similar situations and had one to retire early and three transfer. It is allowed becaus.e he brings in the most money"

10. An ethos of inter-professional respect and collaboration, frustration regarding the miscommunication, and an awareness of the power imbalance that can occur in real life RN-MD communications apparently helped to frame this respondent's perceptions.

"I find it meaningful that there was such a lack of communication. The doctor, understandably,could have been agitated because he was tired, however he handled the nurses call in an inappropriate way. I couldn't believe that the nurse had worked there for so many years and the doctor still didn't know her name, and also questioned her schooling. He also challenged her knowledge, saying basically it would have been handled if there were more nurses who were men … I also couldn't believe that nurses said only 15% of doctors were collegial. I feel that in part the lack of communication is a failure on both the doctors and the nurses part … They are both at fault for the lack of respect that they have for each other, and their failure to fix the problem."

11. An ethos of inter-professional communication and collaboration and concern for the patient's wellbeing apparently helped to frame this respondent's observations.

"I thought the most meaningful part of nurse-physician communications was when the RN explained to the audience how it used to be in the old days. I think it is vital that nurses and physicians COMMUNICATE and actually take the time to form relationships. Good communication can only lead to better patient care and safety, and can also decrease the amount of frustrations that build due to poor communication."

12. An ethos of productive inter-professional communication and collaboration and an ethical concern for the patient's wellbeing apparently helped to frame this respondent's observations.

"The nurse and physician feel the same way about each other. They need to realize that the patient comes first… The nurse that previously spoke with the physician regarding the critical lab value, should have documented that the physician was notified… this call could have been prevented. Nurses need to make sure that they have all the information ready when notifying physicians about a patients status. Physicians need to be more professional when talking to nurses."

Survey Question 3: Did reading help you to interpret the print scenario? Why or why not?

Analysis of free writing data in responses 1-12:

1. An awareness of becoming situated in a representation of a real life clinical scenario, plus an awareness of the pathos of the print narrative apparently helped to frame this respondent's perceptions.

"The print scenario helped me visualize and feel what was going on in the physician-nurse situation. I could easily fit myself into this scenario based on personal experiences I have had at my job."

2. A preference for the video scenario in order to better interpret the context for the communication exchange apparently helped to frame this respondent's perceptions.

"I think in this scenario it would be better to watch a video version because on paper it is hard to tell the tone of their voices. The sound of a persons (sic)voice makes a big difference when communicating. Having the scenario in print was helpful because it makes sure you get every word that was said because sometimes when watching a scenario it's easier to miss something that was said."

3. A preference for the video scenario in order to better interpret the context for the communication exchange apparently helped to frame this respondent's perceptions.

"Reading did help understand the print scenario, however I feel that I would do much better being able to both read and watch the scenario. Hearing and seeing the information at the same time would make it stay in my memory so much longer."

4. A preference for reading apparently helped to frame this respondent's perceptions.

"Yes. Reading implemented the importance of communication in health care and the direct effect it has on patient care. The print scenario helped me visualize the real-life situation of communication between nurses and physicians. I think that communication is a major area that needs improvement in health care. The mindset of doing things fast in

order to be done earlier is one area that has led to deteriorating communication between professionals. The print scenario was very disturbing in the aspect of the reality of the situation."

5. An appreciation for the ability to read the print scenario apparently helped to frame this respondent's perceptions.

"*Yes. It was clearly written, easy to interpret. No problems."*

6. An appreciation for the ability to read the print scenario and review details of the narrative apparently helped to frame this respondent's perceptions.

"I enjoyed reading the print scenario because it allowed for easy comparison between both parties feelings on similar matters. I could easily scroll back to what the nurses stated about one situation and compare the physician's feelings on the same situation."

7. A preference for the video scenario in order to better interpret the context for the communication exchange apparently helped to frame this respondent's perceptions.

"I believe that reading the words in the print allows you to read the words, but alot of the conversation was left out. Also, when reading, as opposed to watching the video, it doesn't allow the tome and anger the physcican is communicating with. Also you are not able to view the non verbal communication between the nurse and physician."

8. Brevity of response apparently helped to frame this respondent's perceptions.

"yes."

9. An appreciation for the ability to read the scenario and an implicit preference for the video scenario apparently helped to frame this respondent's perceptions.

"Sort of ... it allowed me to read the situation with my own interpretation of attitude and level of concern. I assume that the MD was condescending and hateful for being woken up with this particular situation ... again. However, I also assume that the nurse spoke with intelligence and confidence in her voice too."

10 The ability to review details of the narrative apparently helped to frame this respondent's perceptions.

"Yes, I read this scenario three times and I could put myself in her situation."

11. The ability to review details of the narrative apparently helped to frame this respondent's perceptions.

"probably more so than watching a video because you could go back a re-read and review key points aboutthe scenerios."

12. An appreciation for the ability to read the print scenario and an explicit preference for the video scenario apparently helped to frame this respondent's perceptions.

"I think I would have preferred to have the video scenario. Reading the scenario a few times allowed me to paint a picture in my head of the interaction of the nurse and the doctor. I hope this is all you were looking for in this question. I don't if you meant did reading the scenario help me interpret the print scenario."

Endnote

1. Study participants' responses are in italics. Some longer responses have been condensed. Responses have not been edited for typos or sentence mechanics.

Addendum B: **Free Writing Data for Discourse Analysis. Video Respondents. First Post-Intervention Qualitative Survey.** [1]

Survey Question 1. What do you find most meaningful about patient status and why? [1]

Analysis of free writing data in responses 1-11:

1. A sense of fear apparently helped to frame this respondent's perceptions.
"*I found the most meaningful that nurses are too scared to call the doctor about an unclear order. They are messing with the patient's life and it could be fatal. Communication is very important and each party should be mutually respectful.*"

2. An ethos and ethic based on the greater good of the patient apparently helped to frame this respondent's perceptions:
"Patient status is 100% contingent upon the clear and consise communication of orders between the physician and the nurse. The physician is the "director" of that patient's care and has a responsibility to make sure that his/her orders are clearly written. The status of the patient was put into jeopardy by both the physician as well as the nurse."

3. An ethos and ethic based on the greater good of the patient apparently helped to frame this respondent's perceptions:

"It is very important to have proper communication between nurses and between nurses and physicians because without proper communication, errors can be made in the lives of the patients."

4. An ethos and ethic based on the greater good of the patient apparently helped to frame this respondent's perceptions:

" ...the nurse should have put the patient's status even higher above her fear of calling the doctor again for the patient's safety."

5. An ethos of clear communication for the patient's good apparently helped to frame this respondent's perceptions:

"The things of concern the nurse brought up when calling the doctor. They are obviously the most important indicators for the condition of the patient since they were the ones she needed to share with the doctor."

6. The patient's greater good apparently helped to frame this respondent's perceptions:

"The patient did not seem to be a part of this drama ... It seemed the nurse and doctor were too involved in their own drama ... to realize what had become of the patient. It seems to me that the patient was an innocent bystander while their care quickly deteriorated."

7. Burkean identification apparently helped to frame this respondent's perceptions:

"I had a patient very similiar to this fictional one, the outcome was not favorable."

8. An ethic of charting apparently helped to frame this respondent's perceptions:

"I found that charting is most meaningful to patient status based on a lack of communication and conversation between doctors and nurses. These professionals don't have a reason to speak to each other, so they communicate through the chart. If something is illegible, then a mistake can be made."

9. The patient' greater good apparently helped to frame this respondent's perceptions:

"…without effective communication skills between the two people that are caring for the patient several things could go wrong such as giving the wrong medications, giving too much or too little medication, and negligence, which can jeopardize the health and safety of the patient."

10. The patient's greater good apparently helped to frame this respondent's perceptions:

"Patient status was the reason the nurse and physician would communicate, but the ineffective communication led to bigger problems and took the focus off of the patient. This disrupts patient safety and care. If physicians and nurses could communicate in respectful and polite conversation, then the focus would be put back on the patient where it belongs."

11. An ethos and ethic based on the greater good of the patient apparently helped to frame this respondent's perceptions:

"That the state the patient ended up being in could have been avoided, if there had been a better relationship between nurse and doctor."

Survey Question 2: What did you find most meaningful about nurse-physician communication and why?

Analysis of free writing data in responses 1-12:

1. Frustration over the work relationship apparently framed this respondent's perceptions:
"I thought the nurse-physician communication was very poor. The doctors attitude to the nurse overall, especially when she called him late at night, was unacceptable. I thought this phone call was most indicative of their … lack of relationship and adequate communication."

2. The patient's greater good apparently framed this respondent's perceptions:
"The way they communicated was childish and inappropriate. It took the focus off of the patient and caused the main concern to be the personal feelings of the physician or nurse. This is not professional and puts the patient at risk. Doctors need to respect the profession of nurses and realize they work hard also, and nurses need to respect the knowledge and hard work that physicians put into their patient care."

3. An ethical concern for the greater good of the patient and outrage over hearing how the fictional nurse was maligned appeared to frame this respondent's perceptions:

"I was appalled to hear how the doctor treated the nurse. It is better to be safe and make sure the doctor is aware of a certain critical value than be sorry for not calling and the patient coding."

4. A pragmatic ethic of how to resolve the problem and an ethical concern for the patient's wellbeing appeared to frame this respondent's perceptions:

"I found that this video gave a very good idea of areas needed in improvement for nurses and physicians. A lack of effective communication ultimately endangered a patient's life. A patient's status should be the priority and therefore effective communication means should be used."

5. An ethical concern for the greater good of the patient appeared to frame this respondent's perceptions:

"Nurse-physician communications are vital to patient safety and well-being. Without the nurse and physician communicating properly, it can lead to increased health risks for the patient. Nurses and physicians should communicate openly with one another without bickering in order to ensure the best patient care for all patients."

6. An ethos of finding a middle ground in the dispute after hearing each side of the story appeared to frame this respondent's perceptions:

"I liked that after the phone call and medication mix up we were able to hear each person (nurse and physician) vent their frustrations. It was easy to see how both sides truly did have a miscommunication and misunderstanding of the other. if you only got to hear one side, you would be likely to agree with that person that yes, it was the nurses fault, or yes, that is a mean, grumpy doctor."

7. An ethical concern for the greater good of the patient and outrage over hearing how the fictional nurse was maligned appeared to frame this respondent's perceptions:

"I found the doctor to be very degrading. The nurse still should have stood up for her patient instead of putting off talking with the doctor."

8. Burkean identification apparently helped to frame this respondent's perceptions

"Very similiar to my present position."

9. A pragmatic ethic regarding charting apparently helped to frame this respondent's perceptions:

" …the way charting is now-a-days prevents communication between nurses and physicians. Charting seems to be the most meaningful way to communicate because it is the only way these professionals communicate."

10. An ethical concern for the wellbeing of the patient and frustration over what should have been a productive working relationship apparently helped to frame this respondent's perceptions:

"... no matter how furious each side was with the other, they let the patient come to harm in the end. Also, when both parties were asked how communication was between the two parties, each stated the communication was "great." Each side had its own issues with the other, but there was no real attempts made in order to improve communication."

11. An ethos of mutual respect apparently helped to frame this respondent's perceptions.

"... if a nurse does not feel that she/he can call a physician without the physician getting upset or that she will be mistreated and disrespected for calling a physician, the nurse may try to handle things her/his own way which could jeopardize patient safety ... if a nurse feels that there is an open and respectful line of communication ... then the patient will be better taken care of."

12. The patient's wellbeing and frustration over what should have been a productive working relationship apparently helped to frame this respondent's perceptions:

"The communication between the nurse and physician were terrible ... The patient should have been the first priority, but it seemed that the major priority was looking out for yourself and tiptoeing around others."

Survey Question 3: Did watching and listening help you to interpret the video scenario? Why or why not?

Analysis of free writing data in responses 1-12:

1. The ability to see and presumably hear the dramatized exchange between the fictional nurse and physician apparently helped to frame this respondent's perceptions.

"Yes. The video was very eye-opening and I more meaningful because they acted it out and we could watch it first hand."

2. The ability to hear the dialogue and see the nonverbal communication, and a concern for preventing communication breakdowns, apparently helped frame this respondent's perceptions.

"Yes, having a video really helped interpret the video scenario. not only was I able to hear the tone and inflections in the speakers voice I was able to notice gestures and body language… I have not had any clinical experience … so a video really helped me to realize the dynamic and recognize why this would be such a huge (and preventable) issue in hospitals and ICU's.

3. The ability to see and hear the exchange apparently helped to frame this respondent's perceptions.

"Yes because I can see and hear real people acting out various scenarios, versus picturing it in my mind from reading."

4. The ability to see and hear the spoken exchange, and an ethical concern for the wellbeing of the patient, apparently helped to frame this respondent's perceptions.

"*Yes, I think it is more meaningful when you are able to watch a scene get played out. It helps you to see how it would be in real life. Even though some parts were hard to hear, the message was clear. Nurses and physicians need to communicate more with one another in order to ensure patient safety and health."*

5. The ability to hear the spoken exchange and see the nonverbal communication between the fictional nurse and physician apparently helped to frame this respondent's perceptions.

"Watching and listening did help me to interpret the video scenario, because I was able to see facial expressions, body language, and hand gestures, which made it a lot easier to understand the message that was being portrayed."

6. An awareness of the screening effects of orality versus literacy apparently helped to frame this respondent's perceptions.

" Yes, I thought it was good to watch and hear it because you can really tell how put out the doctor is. As opposed to reading the conversation where you wouldn't be able to hear the exact tone and connotations of the words he says. I think it's always much more meaningful to hear someone say something rather than read their words."

7. The ability to see and hear the communication between the fictional nurse and physician, as well as an ethos of seeking a middle ground to resolve the communication breakdown, apparently helped to frame this respondent's perceptions.

"Watching as well as listening to the conversations between the physician and the nurse was very powerful. I feel that I have been on one end of each of those phone calls. I was able to view the situation from both ends of the spectrum."

8. An appreciation for how well the dramatization was enacted apparently helped to frame this respondent's perceptions.

"yes! the scenario was very well played out and demonstrated the lack of effectiveness of communication."

9. Pathos in the narrative apparently helped to frame this respondent's perceptions.

"*Yes it helped me understand the video scenario. The "actors" in the scenario used emotions that accurately portrayed real human emotions and helped the viewer understand how these ineffective communications occur."*

10. The ability to see and presumably hear the communication between the fictional nurse and physician apparently helped to frame this respondent's perceptions.

"Yes, I liked being able to see it acted out. If I would have just read it or heard it told aloud, I do not think I would have gotten as much from it as I did from the skit portrayed by the two characters."

11. Situatedness apparently helped to frame this respondent's perceptions.

"*Yes, it did. It helped me to relate the situation better to a real life situation."*

12. A nurse's intuition apparently helped to frame this respondent's perceptions.

"Yes, I believe ICU RNs function with their senses, as well as their skill level. That little voice that says" Something is not right."

Endnote

1. Study participants' responses are in italics. Some longer responses have been condensed. Responses have not been edited for typos or sentence mechanics.

Addendum C. Proposed New Media Course in Digital Writing and Communication In the Health Disciplines.

This 16-week blended course would meet once a week in person. A significant amount of work also would occur online in a software platform like Blackboard. Listed below are a provisional course description and syllabus.

Course Description: This course in digital writing and communication in the health disciplines is designed for students in Nursing, Medicine, Allied Health, Health Communications, and related disciplines. The course is premised on the research-demonstrated theory that writing-to-learn is an effective way to discover, learn, and build upon insights and principles that are useful for collaborative problem solving. After completing this course, students will have a better understanding of (a) strategies that contribute to effective inter-professional communication and (b) how to implement those strategies in current or future clinical work. Students will write five blogs as practice in peer review and peer teaching. The blogs are will be a forum to reflect on, and learn about, key research in nurse-physician communication (assigned readings in the course). Students also will compose a research paper in APA format to analyze a key chapter in *Speak Your Truth. Proven Strategies for Effective Nurse-Physician Communication* by nurse-educator, Kathleen Bartholomew.

Also, working in teams of three to five, students will create a *PhotoVoice* website, a visual rhetoric to focus viewers' attention on one or more key aspects of patient care and patient safety regarding a patient group and clinical condition of the student's choice. If time permits, students also will develop a prototype eBook that will include written text and images related to the assigned readings and the *PhotoVoice* website described above. Each of those activities is designed to foster identification and collaboration among students across clinical disciplines as a preparation for future inter-professional work.

Preliminary Syllabus: Reading, Writing, and Viewing Assignments

Blogs 1-5. For each blog, the first post should be at least 400 words. Second post (a response to a teammate) should be at least 100 words. Compose the blogs in MS Word. Your work on the blogs is a preparation to write your essay assignment.

Blog 1. Language as symbolic action. Words and images as terministic screens.
Based on your reading of Kenneth Burke's *Language as Symbolic Action*, Ch. 3, "Terministic Screens," and based on your viewing of the video *Of Lions and Lambs,* discuss how language can act as a screen to filter and divert attention to one thing and away another, e.g., to or from patient status, to or from a dysfunctional inter professional communication, etc. Also briefly explain how changes in the way language and images

are framed can help to improve nurse-physician communication in the care of a rapidly deteriorating patient, e.g., how the use of the SBAR communication tool can improve nurse-physician communication about changing patient status.

Blog 2. Effective versus ineffective RN-MD communication in health facilities.
Based on your reading of the *Nursing Forum* article, "Perceptions Of Effective And Ineffective Nurse-Physician Communication In Hospitals" (Robinson, Gorman, Slimmer, & Yudkowsky, 2010), describe communication factors that support effective inter-professional collaboration. Explain why you believe those factors are essential within the context of a patient case. Be sure to protect patient confidentiality (use no patient identifiers in your analysis).

Blog 3. *Effective versus ineffective RN-MD communication in health facilities.*
Based on your reading of the article in *Children and Society*, Dilemmas of Inter-professional Collaboration. Can They be Resolved?" (Rose, 2011), discuss other factors that are relevant in effective inter-professional communication. Explain why you believe those additional factors are essential to productive inter professional collaboration within the context of a different patient case. Be sure to protect patient confidentiality (no patient identifiers).

Blog 4. *Shared goals of MDs and RNs regarding patient care and patient safety.* Based on your reading of chapters 1, 2, 4, or 5 in Jerome Groopman's *How Doctors Think*, discuss what you believe to be the shared goals and values of MDs and RNs in patient care and patient safety. Relate your comments to an experience Groopman describes AND to one of your clinical experiences as a nurse or nurse-intern. Be sure to protect patient confidentiality (no patient identifiers). End the blog with an observation regarding why goals and values shared by MDs and RNS are or are not realized in everyday patient care.

Blog 5. *The argument for self-sacrifice in interdisciplinary patient care: Relevant or not?* Based on your reading of Rose's article in *Children and Society* and your reading of chapters. 1, 4, and 5 in Bartholomew's *Speak Your Truth*. *Proven Strategies for Effective Nurse-Physician Communication,* discuss why nurses, physicians, and other clinicians should or should not sacrifice disciplinary autonomy or authority in the interests of patient care and patient safety. Also discuss what you believe are some of the main obstacles to achieving the kind of shared authority and expertise described by Rose

Essay Assignment. In at least five double spaced pages in APA format, and based on your reading of Ch. 5 on "Breakdowns and Opportunities" in *Speak Your Truth. Proven Strategies for Effective Nurse-Physician Communication,* apply Bartholomew's ten communication strategies (pp. 114-115) to one or more of the patient anecdotes you described in blogs this semester. Be sure to read Ch. 5 again before you begin to write. You may model your analysis on the anecdotes and exegesis in that chapter. Of the ten recommended communication strategies, spend more time describing when and how you would implement the SBAR communication tool to reduce or eliminate the risk for dysfunctional communication with physicians or other healthcare professionals. Be sure to protect patient confidentiality (include no patient identifiers in your analysis). End your essay by adding any additional recommendations you might make for improving RN-MD communication in the clinical workplace (e.g., special workshops or in service meetings where clinicians can discuss shared moral or ethical values regarding patient care, shared or competing understandings of what patient advocacy means, etc.)

New Media Component: Students will work in teams of three to five to create a *PhotoVoice* website for inclusion in a pilot eBook (for which the software will be provided). The eBook may be created in Tumult Hype or another readily available eBook generator.

New Media Team Assignment:

Explore the website for *PhotoVoice* (www.*PhotoVoice*.org) and various examples of how clinical students at various universities have adapted *PhotoVoice* for projects in their academic institutions or medical centers. Then based on your reading of Nancy Allen's essay, "Seeing Rhetoric," and based on your work as a clinical student or intern, collaborate with teammates to create an online photo collection that provides a voice to otherwise "voiceless" patients. You may focus on any patient group or clinical condition of your choice. The goal of your website is to inform and guide public or institutional policy regarding patient care, patient support groups, patient safety, community and family-centered health, and/or other issues relevant to your project.

Assemble your photos in a website co-authored by you and your team members. Add text sparingly to inform your viewers when necessary, but keep in mind that this is primarily a visual rhetoric. Its persuasive power comes from the digital images that you and your teammates create and assemble online. Use a free, readily available website generator from Apple, Google, Wix, or other new media provider. Finally, integrate your website with appropriate text into the eBook container provided for this course. Assemble your new media creations as a team, and acknowledge the contributions of each team member in your *PhotoVoice* website and corresponding pilot eBook.

REFERENCES

American Association of Critical-Care Nurses. (AACN). (2010). *AACN standards for establishing and sustaining healthy work environments*. Retrieved from http://www.aacn.org/WD/HWE/Docs/HWEStandards.pdf

American Association of Critical-Care Nurses. (AACN). (2003). W*ritten statement to the institute of medicine committee on work environment for nurses and patient safety*. Retrieved from http://www.aacn.org/AACN/mrkt.nsf/Files/IOM_Testimony_AACN/$file/IOM_Testimony_AACN.pdf

Aiken, L.H. (2011). Nurses for the future. *New England Journal of Medicine*, 364(3), 196-198.

Allen, N. (2008) Seeing rhetoric. In C. David & A. R. Richards (Eds.), *Writing the visual* (pp. 32-50). West Lafayette, IN: Parlor Press.

Ancker, J. S., Carpenter, K. M., Greene, P., Hoffman, R., Kufafka, R, Marlow, L.A, ... Quillin, J.M. (2009). Peer-to-peer communication, cancer prevention, and the Internet. *Journal of Health Communication*, 14, 38-46.

Anson, C. M. (2002). *The WAC casebook. Scenes for faculty reflection and program development.* New York: Oxford University Press.

Arpan, L.M., & Nabi, R. L. (2011). Exploring anger in the hostile media process: Effects on news preferences and source evaluation. Journalism & *Mass Communication Quarterly,* 1, 5-22.

Aristotle. Bollingen Series. (1984). R*hetoric*. In J. Barnes (Ed.), *The complete works of Aristotle,* volume two (pp. 2152-2269). Princeton: Princeton University Press.

Barbour, A. B. (1995). *Caring for patients: A critique of the medical model*. Stanford, CA: Stanford University Press.

Barrett A., Platek, C., Korber, S., & Padula, C. (2009). Lessons learned from a lateral violence and team-building intervention. *Nursing Administration Quarterly,* 33(4):342–351.

Barry, A.M.S. (1997). Visual intelligence. Perception, image, and manipulation in visual communication. Albany: SUNY Press.

Bartholomew, K. (2010). *Speak your truth. Proven strategies for effective nurse-physician communication.* Marblehead, MA: HCPro.

Bartholomew, K,. & Bujak, J. (Producers). (2011). *Of lions and lambs*. *YouTube*. Retrieved from http://www.youtube.com/watch?v=SyFArqgenzU.

Barton, E. (2002). Inductive discourse analysis: Discovering rich features. In E. Barton & G. Stygall (Eds.), *Discourse studies in composition* (pp.19-42). Cresskill, NJ: Hampton Press.

Barton, E., & Marback, R. (2008). The rhetoric of hope in the genre of prognosis. In B. Heifferon & S.C. Brown (Eds.), *Rhetoric of healthcare: Essays toward a new disciplinary inquiry* (pp. 15-31). Cresskill, NJ: Hampton Press.

Bazerman, C. (2010). 2009 CCCC chair's address. The wonder of writing. *College Composition and Communication* 61(3), 571-580.

(2004). Intertexuality: How texts rely on other texts. In C. Bazerman & P. Prior (Eds.), *What writing does and how it does it. An introduction to analyzing texts and textual practices*. Mahwah, NJ: Lawrence Erlbaum Associates.

Bazerman, C., Little, J., Bethel, L., Chavkin, T., Fouquette D., & Garufis, J. (Eds.). (2005). R*eference guide to writing across the curriculum. The WAC clearinghouse.* West Lafayette, IN: Parlor Press. Retrieved from http://wac.colostate.edu/books/bazerman_wac/.

Bennett, H. J. (2003). Humor in medicine. *Southern Medical Journal,* 96(12), 1257-1261.

Berlin, J. (1988). Rhetoric and ideology in the writing class. *College English,* 50(5), 477-494.

Billings, A. et al. (2005). New designs for communication across the curriculum. In S. J. McGee & C. Handa (Eds.), *Discord & direction: The postmodern writing program administrator.* Provo, UT: Utah State University Press.

Bizzell, P., & Herzberg, B. (Eds.). (2001). *The rhetorical tradition. Readings from classical times to the present*. (2nd ed.). Boston: Bedford/ St. Martin's.

Blakesley, D. (2004). Defining film rhetoric. The case of Hitchcock's V*ertigo.* In C. Hill & M. Helmers (Eds.), *Defining visual rhetoric* (pp. 111-133). Mahwah NJ: Lawrence Erlbaum Associates.

(2003). Introduction. The rhetoric of film and film studies. In D. Blakesley (Ed.), *The terministic screen: Rhetorical perspectives on film* (pp. 1-16). Carbondale: Southern Illinois Press.

(2002). *Elements of dramatism*. New York: Pearson Education, Inc.

Bolter, J.D., & Grusin, R. (1999). *Remediation. Understanding new media*. Boston: MIT Press.

Bujak, J.S. (2008). *Inside the physician's mind. Finding common ground with doctors*. Chicago: Health Administration Press.

Bujak, J.S., & Bartholomew, K. (2011). Transforming physician-nurse communication. *Healthcare Executive*, 4, 56-59.

Burns, K. (2011). Nurse-physician rounds: A collaborative approach to improving communication, efficiencies, and perception of care. *MedSurg Nursing,* 20(4), 194-199.

Burke, K. (1969). *A rhetoric of motives*. Berkeley: Univ. of California Press.

(1966) *Language as symbolic action.* Berkeley: Univ. of California Press.

Carpenter, J. H., & Krest, M. (2001). It's about the science: Students writing and thinking about data in a scientific writing course. *Language and Learning Across the Disciplines*, 5(2), 46-65.

Carter, M. (2007). Ways of knowing, doing, and writing in the disciplines. *College Composition and Communication*, 58(3),385-418.

Carter, M., Ferzli, M., & Wiebe, E. N. (2007). Writing to learn by learning to write in the disciplines. *Journal of Business and Technical Communication*, 21(3), 278-302.

Connor-Greene, P., Shilling, H., & Young, A. (2002). Writing for empathy. In C. M. Anson (Ed.), *The WAC casebook. Scenes for faculty reflection and program development* (pp. 6-9). New York: Oxford University Press.

Cooley, M. (1999). Human-centered design. In R. Jacobson (Ed.), *Information design* (pp. 59-82). Cambridge, MA: MIT Press.

David, C., Richards, A.R.. (2008). *Writing the visual. A practical guide for teachers of composition and communication.* West Lafayette, IN: Parlor Press.

Denham, B.E. (2009). Determinants of anabolic-androgenic steroid risk perceptions in youth populations: A multivariate analysis. *Journal of Health and Social Behavior*, 50(3), 277-292.

Denham, B. E., Hawkins, K.W., Jones, K.O., & Billings, A.C. (2007). Anabolic androgenic steroid use as a complicating factor in the female athlete triad: Behavioral implications for sport psychology. *Journal of Applied Sport Psychology*, 19, 457, 470.

Dickson, G.L., & Flynn, L. (2012). Nurses' clinical reasoning: Processes and practices of medication safety. *Qualitative Health Research* 22(3), 3-16.

DiMeglio, K., Padula, C., Piatek, C., Korber, S., Barrett, A., Ducharme, M., …Corry, K. (2005). Group cohesion and nurse satisfaction. *The Journal of Nursing Administration* 35(3):110-120.

Duggan, A., Bradshaw, Y. S., Carroll, S. E., & Rattigan, S. H. (2009). What can I learn from this interaction? A qualitative analysis of medical student self-reflection and learning in a standardized patient exercise about disability. *Journal of Health Communication*, 14, 797-811.

Emig, J. (1977). Writing as a mode of learning. *College Composition and Communication,* 2, 122-128.

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4):51-58.

Faigley, L. (1999). Material literacy and visual design. In J. Selzer & S. Crowley (Eds.), (pp. 171-201). *Rhetorical Bodies*. Madison: University of Wisconsin Press.

Fahnestock, J., & Secor, M. Rhetorical analysis. In E.Barton & G. Stygall, (Eds.), D*iscourse studies in composition* (pp. 177-200). Cresskill, NJ: Hampton Press.

Flowers, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication*, 32(4), 365-387.

(1980). The cognition of discovery: Defining a rhetorical problem. *College Composition and Communication*, 31(1), 21-32.

Gee, J.P. (2011). *How to do discourse analysis. A toolkit*. New York: Routledge.

Gee, J.P., & Hayes, E. R. (2011). *Language and learning in the digital age*. New York: Routledge.

Geisen, J. & Robinson, R.S. (2007). Expanding our influence: Examining visual literacy in related disciplines. *Journal of Visual Literacy*, 27(1), 91-106.

George, D., & Trimbur J. (1999). The "communication battle," or whatever happened to the 4th C? *College Composition and Communication,* 50(4), 682-698.

Goffman, E. (1974). *Frame analysis. An essay on the organization of experience*. Boston: Northeastern University Press.

Haig, K.M., Sutton, S., & Whittington, J. (2006). SBAR: A shared mental model for improving communication between clinicians. *Journal on Quality and Patient Safety,* 32(3), 167-175.

Hackbarth, G. & Boccuti, C. (2011). Transforming graduate medical education to Improve health care value. *New England Journal of Medicine* 364(8), 693-695.

Hawk, B. (2003). Hyperrhetoric and the inventive spectator: Remotivating *the fifth element*. In D. Blakesley (Ed.), *The terministic screen: Rhetorical perspectives on film* (pp. 70-91). Carbondale: Southern Illinois Press.

Haynes, C. A. (2007). In visible texts: Memory, MOOS, and momentum. A meditatio. In C. J. Keller & C. R. Weisner (Eds.), *The Locations of Composition* (pp. 55-70). Albany: SUNY Press.

Heifferon, B. (2008). Pandemics or pandemonium: Preparing for avian flu. In B. Heifferon & S. C. Brown (Eds.), *Rhetoric of healthcare. Essays toward a new disciplinary inquiry* (pp. 51-74). Creskill, NJ: Hampton Press.

(2005). *Writing in the health professions*. New York: Allyn and Bacon.

Hill, C., & Helmers, M. (2004). Introduction. In C. Hill and M. Helmers (Eds.), *Defining visual rhetoric* (pp. 1-23). Mahwah NJ: Lawrence Erlbaum Associates.

Hocks, M. (2003). Understanding visual rhetoric in digital writing environments. *College Composition and Communication* 54, 629-56.

Iyengar, S. (1991). *Is anyone responsible*? How television frames political issues. Chicago: University of Chicago Press.

James, W. (1997). What pragmatism means. In L. Menard (Ed.), *Pragmatism. A reader* (pp. 93-111). New York: Vintage Books.

Kahneman, D, & Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39, (4), 341-350.

Kaiser Permanente. Institute for Healthcare Improvement. (2010). *SBAR technique for communication: A situational briefing model*. Retrieved from http://www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Tools/SBARTechniqueforCo mmunicationASituationalBriefingModel.htm.

Kelly, G. J., Bazerman, C., Skukauskaite, A., & Prothero, W. (2010). Rhetorical features of student science writing in introductory university oceanography. In C. Bazerman, R. Krut, K. Lunsford, S. McLeod, S. Null, P. Rogers & A. Stansell (Eds.), *Traditions of writing research* (pp. 265-282). New York: Routledge.

Kesten, K.S. (2011). Role-play using SBAR technique to improve observed communication skills in senior nursing students. *Journal of Nursing Education*, 50(2), 79-87.

Kellogg, R.T. (2008). Training writing skills: A cognitive developmental perspective. *Journal of Writing Research*, 1(1), 1-26.

Kohn, L.T., Corrigan, J.M., Donaldson, M. S. & the Committee on Quality of HealthCare in America, Institute of Medicine (Eds). (2000). *To err is human: Building a safer health system.* Retrieved from http://www.nap.edu/catalog/9728.html.

Kress, G., & Van Leeuwen, T. (2001). *Multimodal discourse: The modes and media of contemporary communication.* London: Oxford University Press.

Lauckner, C., Smith, S., Kotowski, M., Nazione, S., Stohl, C., Prestin, A., … Nabi, R. (2012). An initial investigation into naturally occurring loss- and gain-framed memorable breast cancer messages. *Communication Quarterly,* 60(1), 1–16.

Lauer, J. M. (2004). *Invention in rhetoric and composition*. West Lafayette, IN: Parlor Press.

Leander, K., & Prior, P. (2004). Speaking and writing: How talk and text interact in situated practices. In C. Bazerman & P. Prior (Eds.), W*hat writing does and how it does it. An introduction to analyzing texts and textual practices* (pp. 201-). Mahwah, NJ: Lawrence Erlbaum Associates.

Lujan, J. (2010) Promoting an interprofessional teamwork culture. *The Internet Journal of Allied Health Sciences and Practices*. Retrieved from http://ijahsp.nova.edu/articles/Vol8Num3/Lujan_8_3.htm.

Lunsford, A.E., & Ede, L. (2012) Collaboration, community, and compromise: Writing centers in theory and practice. In A. Lunsford & L. Ede, *Writing together. Collaboration in theory and practice* (pp. 370-386). Boston: Bedford / St. Martin's.

Lunsford, A.E. (2006). Writing, technologies, and the fifth canon. *Computers and Composition,* 23, 169-177.

Manovich, L. (2002). *The language of new media*. Cambridge: MIT Press.

McCaffrey R., Hayes R.M., Cassell A., Miller-Reyes S., Donaldson A. & Ferrell C. (2012) The effect of an educational programme on attitudes of nurses and medical residents towards the benefits of positive communication and collaboration. *Journal of Advanced Nursing* 68(2), 293–301. doi: 10.1111/j.1365-2648.2011.05736.x

Melzer, D. (2009). Writing assignments across the curriculum: A national study of college writing. *College Composition and Communication,* 61(2), W240-W261.

Nabi, R. L. (2003). Exploring the framing effects of emotion. *Communication Research,* 30, 2, 224-227.

Namkoong, K, Fung, T. K. F., & Scheufele, D. A. (2012): The politics of emotion: News media attention, emotional responses, and participation during the 2004 U.S. presidential election. *Mass Communication and Society*, 15:1, 25-45.

Ong, W. J. (1988). *Orality and literacy. The technologizing of the word.* London: Routledge.

Palmquist, M., Kiefer, K., & Zimmerman, D.E. (2008). Communication across the curriculum and institutional culture. In D. Reiss, D. Selfe, & A. Young (Eds.), *Electronic communication across the curriculum. WAC clearinghouse landmark publications in writing studies,* (pp. 57-72). Retrieved from http://wac.colostate.edu/books/ecac/.

Pan, Z., & Kosicki, G.M. (2001). Framing as strategic action in public deliberation. In S. D. Reese, O. H. Gandy, & A. E. Grant (Eds.), *Framing public life. Perspectives on media and our understanding of the social world.* Mahwah NJ: Lawrence Erlbaum Associates.

Penrose, A. M., & Katz, S. B. (2010). *Writing in the sciences. Exploring conventions of scientific discourse (*3rd ed.). New York: Pearson and Longman.

Prior, P. A. (1998). Writing/disciplinarity. A sociohistoric account of literate activity in the academy. Mahway, NJ: Lawrence Erlbaum Associates, Publishers.

Quitadamo, I., & Kurtz, M.. (2007). Learning to improve: Using writing to increase critical thinking performance in general education biology. *CBE-Life Sciences Education* 6(140), 140-154.

Reiss, D., Selfe, D., Young A. (Eds.). (2008). *Electronic communication across the curriculum. WAC clearinghouse landmark publications in writing studies*. Retrieved from http://wac.colostate.edu/books/ecac/.

Rhome, A. M., McLaughlin, M.K., Malloy, P. J., Maccabe, A.T., & Hendrix, C. M. (2004). Writing across the curriculum using *Healthy People 2010* and the DHHS secretary's award for innovations in health promotion and disease prevention. *Nurse Educator,* 29(4), 152-155.

Robinson, F.P., Gorman, G., Slimmer, L. W., & Yudkowsky, R. (2010). Perceptions of effective and ineffective nurse-physician communication in hospitals. *Nursing Forum*, 45(3):206-216.

Rose, J. (2011). Dilemmas of inter-professional collaboration. Can they be resolved? *Children and Society,* 25, 151-163. dpo: 10.1111/j.1099-0860.00268.x

Rosenstein, A. H., & O'Daniel, M. O. (2008). A survey of the impact of disruptive behaviors and communication defects on patient safety. *The Joint Commission Journal on Quality and Patient Safety* 34(8), 464-471.

Saxton, R. (2012). Communication skills training to address disruptive physician behavior. *AORN Journal*, 95(5), 602-611.

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, 49(4), 103-122.

Selber, S. Ed. (2010). *Rhetorics and technologies: New directions in writing and communication.* Columbia: University of South Carolina Press.

Segal, J. Z. (2009). Internet health and the 21st century patient. A rhetorical view. *Written Communication,* 26, 4:351-369.

Selfe, C. L. (2007). *Multimodal composition. resources for teachers*. Creskill, NJ: Hampton Press.

Selfe, C. L. (2004) Students who teach us. A case study of a new media text designer. In A. F. Wysocki et al., (Eds.), W*riting new media. Theory and applications for expanding the teaching of composition,* (pp. 43-66). Logan, UT: Utah University Press.

(2004). Toward new media texts. Taking up the challenges of visual literacy. In A. F. Wysocki et al., (Eds.), W*riting new media. Theory and applications for expanding the teaching of composition,* (pp. 67-110). Logan, UT: Utah University Press.

Seward, A.M.B. (1997). *Visual intelligence. Perception, image, and manipulation in visual communication.* Albany: SUNY Press.

Singh, A., Uijtdewilligen, L., Twisk, J.W.R., van Mechelen, W., & Chinapaw, J.M. (2012). Physical activity and performance at school. *Archives of Pediatric & Adolescent Medicine,* 166(1), 49-55.

Sorrell, J. (2001). Stories in the nursing classroom: Writing and learning through stories. *Language & Learning Across the Disciplines,* 5(1), 36-48.

Stafford, B.M. (2007). *Echo objects: The cognitive works of images*. Chicago, IL: University of Chicago Press.

(1996). *Good looking. Essays on the virtue of images*. Cambridge, MA: MIT Press.

Steed, C.J., Howe, L.A., Pruitt, R. H., & Sherill, W.W. (2004). Intergrating bioterrorism education into nursing school curricula. *Journal of Nursing Education*, 43(8), 362-367.

Stob, P. (2008). 'Terministic screens,' social constructionism, and the language of experience: Kenneth Burke's utilization of William James. *Philosophy and Rhetoric*, 41(2), 131-152.

Taylor, S. S. (2006). Assessment in client-based technical writing classes: Evolution of teacher and client standards. *Technical Communication Quarterly,* 15:2,111-139.

Taylor, S.S., Young, A. (2007). Using client-based writing to teach problem-solving. In Cynthia Selfe (Ed.), *Resources in Technical Communication: Outcomes and Approaches (*pp. 7-20). Amityville, NY: Baywood Publishing.

Taylor, T. (2008). Teacher training: A blueprint for action using the world wide web. In D. Reiss, D. Selfe, & A. Young (Eds.), *Electronic communication across the curriculum. WAC clearinghouse landmark publications in writing studies,* (pp. 129-136). Retrieved from http://wac.colostate.edu/books/ecac/.

Thomas, K. J., Denham, B.E., & Dinolfo, J.D. (2011). Perceptions among occupational and physical therapy students of a nontraditional methodology for teaching laboratory gross anatomy. *Anatomical Sciences Education*, 4, 71-77.

Tufte, E. (2006). *Beautiful evidence*. Cheshire, CT: Graphics Press.

Ulrich, B.T., Lavandero, R., Hart, K.A., Woods, D., Leggett, J., Friedman, D., …. Edwards, S. J. (2009). Critical care nurses' work environments 2008: A follow-up report. *Critical Care Nurse* 29(2):93-102.

Waldrip-Frinn, N. (2003). *The New Media Reader*. Cambridge: MIT Press.

Wanzer, M.B., Wojtaszcxyh, A. M., & Kelly, J. (2009). Nurses' perceptions of physicians' communication: The relationship among communication practices, satisfaction, and collaboration. *Health Communication*, 24 (8), 683-691.

Weber, D.O. (2004). Poll results: Doctors' disruptive behavior disturbs physician leaders. *The Physician Executive,* 30(4), 6-14.

Welch, K. (2000). Interdisciplinary communication in a literature and medicine course: Personalizing the discourse of medicine. *Technical Communication Quarterly,* 9(3), 311- 328.

Whitcomb, J. J., & Newell, K. J. (2008). Skill set requirements for nurses deployed with an expeditionary medical unit based on lessons learned. *Critical Care Nursing Clinics of North America*, 20, 13–22.

Yancey, K.B. (2009). 2008 NCTE presidential address: The impulse to compose and the age of composition. *Research in the Teaching of English,* 43(3), 316-338.

(2002). Making learning visible. What you can't see can change response. In C M. Anson (Ed.), *The WAC casebook. Scenes for faculty reflection and program* development (pp. 69-71). New York: Oxford University Press.

Yedidia, M.J., Gillespie, C.C, Kachur, E., Schwartz, M.D., Ockene, J., Chepaitis, A.E., …..Lipkin, M. (2003). Effect of communications training on medical school performance. *Journal of the American Medical Association*, 290(9), 1157-1165.

Young, A. (2006). *Teaching writing across the curriculum*. (4th ed.). Upper Saddle River, NJ: Pearson/Prentice Hall.

(2003). Writing across and against the curriculum. *College Composition and Communication,* 54(3), 472-485.

(1994). The wonder of writing across the curriculum. *Language & Learning Across the Disciplines*, 1, 58-71.

Young, A., Connor-Greene, P., Waldvogel, J., & Paul, C. (2003). Poetry across the curriculum: Four disciplinary perspectives. *Language & Learning Across the Disciplines*, 6(2), 14-44.

Young, A., & Fulwiler, T. (Eds.). (1986). *Writing across the disciplines. Research into practice*. Upper Montclair, NJ: Boyton/Cook Publishers, Inc.