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## Emergency Medicine Triage as the Intersection of Storytelling, Decision-Making, and Dramaturgy

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Emergency Medicine Triage as the Intersection of Storytelling, Decision-Making, and  
Dramaturgy

by

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A dissertation submitted in partial fulfillment  
of the requirements for the degree  
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God Bless

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## **Abstract**

This dissertation presents a comprehensive qualitative study of the decision-making aspects of emergency department (ED) triage at a large urban Trauma I hospital in the Southeast. Specifically, this study addresses the following research questions: (1) What do triage nurses perceive as the primary role of the triage process? (2) How do triage nurses interpret patient performances? These questions are explored through illuminating the intricacies of triage decision-making by the use of semi-structured interviews and observations.

The findings of this study indicate: (1) a better understanding of the triage decision-making process yielding more practical insights related to the informal, emergent, and often improvisational ways patients are received, categorized, and treated was needed, and (2) providing a clearer understanding of the processes involved in sorting patients may provide much-needed insight regarding clinical concerns and/or issues regarding patient categorization, adverse clinical events, and excessive patient wait times. These findings are of particular importance due to the widespread overuse of EDs for nonemergent care. Essentially, EDs are designed for patients to visit due to an alteration in their physical and/or mental state. Once a patient enters the ED, a medical professional is tasked with the responsibility of interpreting the physical and/or mental state of the patient, which is generally achieved by interpreting the patient story – the precipitating event that brought them into the ED. What this study contributes to the literature is a deeper understanding



of the communicative processes that ED triage nurses leverage to make sense of patient stories.

## Chapter 1

### Literature Review

Emergency departments (EDs) are unique contexts in which to study communication and decision-making. Emergency medicine is a largely communicative activity, and contextual factors complicate effective communication and decision-making. Poorly structured problems, incomplete or conflicting information, dynamic situations, multiple and competing goals, intense time pressure and serious consequences of errors are some of the contextual factors that characterize the ED work environment (Eppich, Brannen, & Hunt, 2005). Staff shortages, limited resources, and an expanding patient population add additional pressures to an already intense communicative work environment (Eisenberg, Baglia, and Pynes, 2006).

The work environment of a typical ED is fundamentally different than other contexts in which medical care is provided (Wears, et al., 2003). The work of ED professionals is *unbounded*, as there is little control over the workload; staff shortages, limited resources, overcrowding, and long wait times for patients are often the result. Emergency room (ER) work involves *multiplicity*, caring for numerous patients with highly variable complaints simultaneously. EDs in the U.S. serve an expanding and diverse patient population, including insured patients with primary care physicians sent to the ED for evaluation and treatment on weekends, holidays, and after hours; patients with mental health and substance abuse issues who are not able to receive treatment in their communities; and uninsured patients, for whom the ED is often the only care available.

EDs are the safety net for the uninsured/underinsured, centers for trauma and critical care entry, and the last resort for the disenfranchised. EDs also do forensic work in health care and treat both the victims and perpetrators of crimes, as well as those affected by natural and man-made disasters, including acts of bioterrorism. The need to dramatically shift and constantly reset one's cognitive frame and communicative approach is further complicated by *constant interruptions* and changing priorities.

The work of ED professionals can be characterized by a high level of *uncertainty*, and *serious consequences of error*. There is usually a lack of background information on patients, and difficult decisions often must be made before critical laboratory data or other test results are available. Emergency medical care is provided under *significant time constraints*, which can cause a narrowing of focus and rush to make decisions, and *little privacy* or back stage areas in which in-depth discussions could occur. ED professionals receive *little or no feedback* on the results of their care, making it difficult to learn from experience. There is *little opportunity for practice*. Most work in the ED is routine and the riskiest procedures and decisions arise only sporadically, unlike other high-risk occupations like air traffic control or anesthesiology. EDs are chaotic and emotional. Kelly (2005) describes everyone in the ED as afraid—staff members are scared of making mistakes or missing something serious, and patients are afraid of the trauma or symptoms they are experiencing or that they will not receive care.

The work environment of the ED makes the specific communication processes that occur—triage, testing and evaluation, handoffs, and admitting—vulnerable to error and medical mistakes that can harm patients. Eisenberg and colleagues (2006) have begun important work to identify the particular communication challenges in the ED workflow,

and have investigated the hand-off process in particular. The goal of the present study was to investigate the ways in which triage occurs in the ED, particularly the ways in which patient performances, including their narratives and other communicative acts, are interpreted and acted upon by triage nurses.

The triage process essentially sorts patients into categories of those who must be seen immediately and those who can wait for care. Triage professionals (intake personnel, nurses, and physicians) are responsible for making an initial preliminary diagnosis so that patients can receive appropriate care. Little has been written about the performative aspects, decision-making tools, and intuitive rules triage nurses use to complete this important, difficult, and essential task. When asked, experienced triage nurses will claim “experience,” “gut feeling,” or “careful observation” as decision making guides, but there are also organizational goals, relationships, special categories of patients, and external metrics that guide and influence the triage process.

### **Research Questions**

The primary goal of this study is to provide a thick description of the triage process as it is done by dedicated ED triage nurses in a large Southeastern U.S. hospital. Of interest is the interplay that occurs between the patient’s ability to perform the narrative of why they have chosen to seek emergency care and the conclusions nurses draw about the meaning and validity of this narrative. I pose two research questions designed to enhance our understanding of the triage communicative process:

1. What do triage nurses perceive as the primary role of the triage process?
2. How do triage nurses interpret patient performances?

The triage process thrusts both triage professionals and patients into an ongoing and often unpredictable communicative negotiation filled with unexpected plot twists and dramaturgy. Developing a better understanding of the communicative intricacies of this process is critical for two distinct reasons: (1) a clearer understanding of the processes involved in sorting patients may provide much-needed insight regarding clinical concerns and/or issues regarding patient categorization, adverse clinical events, and excessive patient wait times and (2) a better understanding of the communicative exchange and decision-making process shared between triage nurses and ED patients could yield practical insights related to the informal, emergent, and often improvisational ways patients are received, categorized, and treated.

The next section of this chapter reviews literature relevant to enhancing our understanding of the communicative exchange that occurs during triage nurse encounters. A review of the literature reveals the following themes: (1) the role of decision aids in triage nurses' decision-making; and (2) the role of knowledge vs. experience in triage nurses' decision-making.

## **Review of Literature**

**The role of decision aids in triage nurses' decision-making.** Clinical training/education could potentially improve triage nurse decisions. Since much clinical education introduces decision trees, algorithms and similar aids, this section focuses on studies that examine the utility of triage nurse decision aids, and how they shape the triage encounter.

Patients arrive in the ED with stories, and triage RNs extract aspects of the patients' story into an actionable list that has clinical significance. Browning's work on lists and

stories in organizations (1992) is potentially helpful in understanding this process and will be discussed later in the chapter. Decision aids are one of the “translation” tools that can be a factor in this process. Ferrario (2003) compared the use of such tools among expert triage nurses (greater than five years’ experience) and novices (less than five years’ experience) and found an observed difference “in the ways in which nurses who were new to the department and nurses who had been in emergency nursing for some time processed information for triage and treatment decision-making” (p.43). Ferrario notes that “during discussions, it was difficult for experienced nurses to articulate distinct facets of information that had been used to arrive at nursing diagnoses” and “new nurses were able to cite textbook classifications of signs and symptoms they had observed, but lacked the ability to differentiate subtle nuances in patients’ presentations and to perceive a perspective or gestalt view of the patients’ problems that were greater than the composite of discrete signs and symptoms” (p. 43). Ferrario claims that due to the complexity and fast paced nature of the ED, experienced triage nurses use decision aids differently and more selectively than less experienced triage nurses in the problem-solving and decision-making that translates patients’ stories into lists of clinical actions.

Ferrario explains that decision aids serve as additional cues to drive the triage nurse’s diagnostic reasoning process, especially in complex diagnostic reasoning tasks that involve multiple cues. Experienced nurses integrate these tools along with composites of perceptions and interpretations garnered from clinical experience. Novice nurses lack clinical experience and may rely too heavily on decision aids; experienced triage professionals may consider decision aids to be limiting due to their length and non-tailored design. However, such tools provide a structured approach to decision-making, which may

be particularly important when triage professionals are forced to make probabilistic judgments with limited information and in short time frames.

Cioffi and Markham (1997) discuss three principles that shed light on how triage nurses navigate the decision-making process: First, *availability*, which is characterized by the ease with which a vivid or recent instance of a particular case comes to mind. For example, a nurse may hold a vivid memory of a particular breeched birth experienced in the past, which triggers memories of the particular case—making this memory available to be used when assessing any future patient with a similar clinical presentation. Second, *anchoring*, describes when the decision-maker starts from an anchor point or base line. For instance, this is where the triage professional will determine a possible diagnosis of a patient based on the patient's initial physical presentation. In the third, *adjustment*, the decision-maker starts from the anchor point to take account of a patient's characteristics to arrive at a final decision. Essentially, both *anchoring* and *adjustment* are interrelated, since a patient's diagnosis may change over a period of time based on the possible evolution of a patient's symptoms and complaints (Cioffi, p.185, 1998). Having a large repertoire of past experience to pull from can be useful during triage decision-making, and Cioffi finds that novice triage professionals who lack this data base of past experience tend to collect more data, and rely more on decision aids than more experienced nurses.

Cioffi (1998) conducted a study consisting of twenty ED triage nurses that included twelve nurses with at least five years of ED experience and eight nurses with at least one year of experience. The primary focus of this study was to determine how both groups (experienced and less experienced) of ED triage nurses would assign the Emergency Severity Index (ESI) after reviewing six triage case scenarios. The ESI is a five category

system used in triage to determine patient severity: (1 = resuscitation; 2 = emergency, 10 minutes; 3 = urgent, 30 minutes; 4 = semiurgent, 1 hour; 5 = nonurgent, 2 hours). The study results demonstrated that there is often no clinical difference in the way experienced and novice nurses make decisions in uncertain environments.

However, Tversky and Kahneman (1982) contend that both experienced and novice nurses would significantly improve their decision-making skills during periods of clinical uncertainty through the addition of decision aids. Specifically, they argue that “by relying on heuristic principles, individuals have been found to simplify the complex task of assessing probabilities and predicting values” (p.383). This idea is of great importance due to the ED being viewed as a high acuity and pressure-filled environment that tends to place an inordinate amount of stress on triage nurses. For many, the sheer volume and complexity of what is required to do the job correctly, safely, or reliably, can often exceed the triage professionals’ ability to deliver essential care without the support of decision aids and other protocols.

The literature discussed here makes clear that the triage encounter takes place in a cognitively challenging environment filled with obstacles to communication and high stakes, and that decision aids or decision rules are a form of knowledge in addition to experience and intuition in the decision-making processes of triage nurses. There is some evidence that experienced triage nurses approach their sensemaking work differently than less experienced nurses. Understanding how sensemaking occurs in the triage process might provide ways to explain how patient performances are evaluated and acted upon that could be codified and then somehow taught to new triage nurses.



The goal of the present study is to begin to clarify the ways in which triage nurses interpret patient narratives and performances. To help unravel many of the communicative complexities associated with ED triage, I rely on Goffman's theory of dramaturgy (1959) and the work of Browning on lists and stories (1992).

Goffman's work on dramaturgy (1959) provides a useful theoretical foundation for this study, and may be well suited to illuminating the communicative exchanges and decision-making processes that occur during ED triage encounters between patients and nurses. Browning's work on lists and stories (1992) in organizational communication may also provide insight into how triage nurses do the interpretive work they do in the ED.

**The role of knowledge vs. experience in triage nurses' decision-making.** This section reviews studies that attempt to measure the influence that various types of knowledge and experience have on triage decision-making. Considine et al. (2007) divide decision making into two parts: Primary and Secondary. Primary triage decisions can be characterized by the initial treatment protocol that is established at the onset of care when the patient enters the ED (e.g. triage assessment, allocation of a triage category, and suitable location for treatment). Secondary triage decisions "relate to initiation of interventions to expedite care and promote comfort" (Considine et al., p.722, 2007). Considine et al. recognize that these decision-making components serve as a major influence in determining the trajectory of the ED workflow and patient experience outcomes.

Considine and colleagues also begin to help us understand the ways in which experience contributes to the triage nurse's knowledge base. The authors suggest that neither Procedural Knowledge (related to the performance of activities or associated with

action, for example, decision rules and clinical guidelines) nor Factual Knowledge (knowledge of a set of facts, terminology, and/or specific details and elements) in isolation “necessarily translate to better clinical decisions” (Considine, Botti, and Thomas, p.723, 2007). Instead, the authors argue that integrating various types of knowledge provides triage nurses a more expansive knowledge repository during periods of clinical application. Additionally, the authors conclude that factual knowledge or knowledge in general gained from experience are “inextricably linked,” but factual knowledge seems to play a more significant role in triage decision-making versus experience (p.725). In others words, the authors concede even though they believe that factual knowledge appears to have more relevance on triage decision-making compared to experience, they acknowledge that further exploration is required to better understand the roles that knowledge and experience have on triage decisions.

Arslanian-Engoren (2000) suggest that triage nurses’ level of experience plays a significant role in appropriate triage decisions for women presenting with the symptoms of myocardial infarction (MI). In general female patients are less likely than male patients to be diagnosed with a myocardial infarction (MI) or to receive early or aggressive treatment, and are more likely than men to die from an MI (Arslanian-Engoren, 2000). Gender bias is an important factor in triage decisions as well.

As Arslanian-Engoren (2000) claimed, the impact of sex differences in MI presentation reinforced “the importance of personal knowing, and intuition, as well as the influence of the practice environment and the threat of liability on the decision-making process” (Arslanian-Engoren, p.122, 2000). Gender bias may be ameliorated by experience if triage nurses have encountered women with MI symptoms and learned an appropriate

response. However, new triage nurses may benefit from classroom materials that emphasize gender differences in presentation of MI symptoms. It is not clear from this study whether gender bias is reinforced or lessened by experience alone.

Cone and Murray (2002) conducted a study to ascertain what expert triage nurses see as the most important factors influencing quality of triage decisions. The researchers designed a qualitative study that included two focus groups and ten emergency nurses (minimum of 5 years' experience) in two Midwestern emergency departments. What they discovered was that triage nurses generally felt that experience was the most important characteristic to efficient and appropriate patient triage, and that expert triage nurses depended on a "gut feeling" that guided their decision-making. Essentially, the experienced nurses in this study claimed decision trees or other guidelines stifled their decision-making, but as one experienced nurse in the study said, "Decision trees are needed to help the beginner make better choices because she has nothing to build on...nothing to make decisions from...no experience" (Cone and Murray, p.405, 2002). This study supports the notion that expert triage nurses rely on their personal experiences and those of other nurses rather than pre-established triage criteria like decision trees or algorithms to make appropriate clinical decisions. Interestingly, the expert nurses in this study thought that all triage nurses, regardless of level of experience, would benefit from a structured formal course on how to triage. However, the more experienced triage nurses often seen as mentors for new emergency nurses, noted difficulty when orienting new nurses because of their lack of knowledge about the triage process, and in many cases their lack of experience in the ED environment overall (p.405). The authors suggest that due to the lack of confidence that beginner triage nurses exhibit versus more experienced triage nurses, the

need for mandatory orientation and mentorship among beginner triage nurses is critical to their development.

Cone and Murray (2002) make it clear that both beginner and more experienced triage nurses would benefit from continued education that (1) provides much needed positive reinforcement, and (2) creates an atmosphere that supports a nonthreatening learning environment (p.405). Essentially, the authors are supporting the idea that by creating a more “mentor-centered approach” to triage may contribute to a triage culture that is open to sharing best practices and enhancing professional development skills of all triage nurses regardless of experience level.

Smith and Cone (2010) reiterate the critical nature of triage decision-making when they suggest nurses must be able to prioritize patient care on the basis of appropriate decision-making. The authors designed a Triage Decision-Making Inventory (TDMI) that can be used to design tailored training platforms for continuing education programs for triage nurses. A major conclusion of this study was a reaffirmation of the importance of continuing professional education (CPE) for the purpose of developing a more tailored training program that emphasized development of critical thinking skills and evolving triage protocols. The authors suggest that incorporating an ongoing CPE platform would help highlight the crucial elements necessary for more effective triage decision-making.

Cooper, Schriger, Flaherty, Lin, and Hubbell (2002) studied whether knowledge of vital signs changed nurses’ triage designations and whether a patient’s age and ability to communicate modified the effect of vital signs on triage decisions. Of the more than 14,000 patients involved in the study, knowledge of vital signs led nurses to revise only 8% of the triage designations they had made based solely on intake history, visual cues, and limited

physical examination. However, 70% of these changes were of clinical significance and led to upgrading the urgency level of care. Not taking patients' vital signs or not appropriately including those data sharply exacerbated poor patient outcomes, particularly for vulnerable patient populations (ethnic minorities, elderly, and the very young). Therefore, at least in a small subset of cases, there can be catastrophic consequences for patients when the decision-making process excludes objective assessments (i.e. vital signs) during the medical triage encounter. Vital signs and other routine clinical metrics are obviously important, but triage nurses must skillfully use this information along with other impressions, observations, and experiences to make sound triage decisions.

Other studies show that education and training promote agreement on diagnosis and acuity among triage nurses. Le Vasseur et al. (2001) showed that reeducating three experienced triage nurses simultaneously over five shifts and 141 episodes improved interrater agreement on level of triage. Similarly, Fernandes et al. (1999), showed that triage nurses who received 8 hours of training and 8 hours of supervised practice had significantly improved interrater agreement. Jelinek and Little (1996) suggested that triage decisions were largely unaffected by triage nurse experience alone; Dilley et al. (1998) noticed that regardless of triage nursing levels (ranging from 12 months—5 plus years), there was no clinically significant improvement in triage accuracy; Considine et al. (2000) also found no correlation between triage accuracy and experience in terms predicting good clinical outcomes.

It is difficult to conclude from the literature that increased triage experience alone equates to improved triage accuracy (Considine et al., 2007). Watson (1994) posited three criteria for how triage nurses obtain experience: (a) the passage of time, (b) gaining skills

or knowledge, and (c) exposure to an event. The nursing literature tends to equate the passing of time with experience, which is often used to categorize nurses. This categorization seems to lack *rigor*; “experience should be defined in terms of how it transforms or changes nurses” (Bobay, 2003), and not by one’s years of experience alone. Knowledge gained by reflecting on one’s experiences, observing the experiences of knowledgeable others, and continually upgrading one’s knowledge base through participation in continuing education programs, as well as the selective use of decision aids seem most likely to improve triage outcomes. Formal training programs, supervised practice, and periodic re-education seem most likely to create an environment for greater triage nurse reflection and improved understanding of how experience impacts triage decisions. Both of these theoretical frameworks are described below.

**Goffman’s theoretical framework.** Although Goffman’s dramaturgical perspective is broad and not specifically designed for the healthcare environment, some of its ideas are well suited to describe the communicative exchange and decision-making process that occurs during ED triage encounters. Grove and Fisk (1996) claim the dramaturgical perspective is particularly useful in two types of settings: (1) where multiple people are served simultaneously rather than individually and (2) where there is a lot of contact between the service provider and the customer, both of which occur in the ED setting. Although dramaturgy has not been significantly explored in the ED triage literature, it has been applied in other healthcare settings. Morgan and Krone (2001) used Goffman’s work to explain how organizational norms of emotional expression are open to negotiation through improvised performances at a cardiac care center. John (1996) applied dramaturgy to better understand cultural value-based impression management guidelines

for medical professional behavior. Henderson (2005) utilized dramaturgy to interpret the settings, practices, and interactions unique to the healthcare environment. Murphy (2009) attempted to understand how the 'acting out' of roles in a magnetic resonance imaging (MRI) department was impacted by self-identity and professional image. Holmes (1992) explored the possibilities for conceiving of nursing as a form of aesthetic praxis; and Ellingson (2003) discussed how back stage teamwork enhanced the care of patients at a geriatric oncology cancer center. In all these studies, dramaturgical concepts were useful in describing and analyzing the complex performances of actors in healthcare environments.

Three concepts from dramaturgy seem especially suited to understanding the communicative intricacies of ED triage: (1) Performance; (2) Front stage and Back stage behavior; and (3) Hierarchy.

**Performance.** During an ED triage encounter, everyone has a role to play. First, the role of the triage professional is to facilitate their primary objective - to identify and treat the sickest patient first. The primary goal of the patient is to get medical care, and to do this they must effectively communicate the precipitating event that brought them to the ED. Performance is used by these actors (patient and triage professional) to accomplish their primary objectives. Both actors constantly struggle to maintain and manage his/her performative "impression."

In any social interaction, first impressions "can make or break" the impressions that are forged during initial social encounters. To illustrate this point, Goffman relies on the dynamics of the classroom to accentuate his argument regarding the importance of first impressions: He states, "You can't ever let them get the upper hand on you or you're

through. So I start out tough – the first day I get a new class in, I let them know who’s boss... You’ve got to start off tough, then you can ease up as you go along. If you start out easy-going, when you try to get tough, they’ll just look at you and laugh” (Goffman, p.12, 1959). Not unlike any other relationship, in order for the triage encounter to work, each performer (patient/triage nurse) must play by the rules.

Performers use various critical tools to accentuate their performances. First, “maintenance of expressive control,” which Goffman suggests a performer employs to manage the impressions which he/she projects to an audience for the purpose of authenticity. This is a critical because it provides the performer a tool to self-check discrepancies or impressions in terms of gestures or spoken words that may be communicated to an audience in order to prevent any disruption of the whole performance. An example of the self-check tool for triage nurses may be the ways in which they project detached concern to patients - they care, but not too much. Patients may need to check that their stated complaint matches their physical presentation which is more difficult if they are overstating pain or other symptoms in order to “jump the line.”

As Goffman states, it is a vital ability for a performer to distinguish contradictions that in some way may startle the audience (i.e. triage professional or patient) from the actual intentions of the performer (Goffman, 1959). This idea is certainly relevant to ED triage encounters, because a triage professional absolutely does not want to (1) project any trace of unprofessionalism, incompetence, and/or inexperience or (2) project any sense of dislocation or disinterest regarding the patient’s clinical needs. Conversely, the patient does not want to project a story that contradicts their clinical presentation and may damage their credibility from the triage nurse’s perspective.



Second, another critical tool that performers employ to determine the integrity of performances is what Goffman calls “misrepresentation,” which speaks to the authenticity of a performer’s presentation. Essentially, once an audience conducts an inventory of a performer’s cues or verbal/nonverbal expressions, an audience will generally unconsciously/consciously conduct an analysis to determine credibility. On this point, it might be interesting to learn how triage professionals deal with regular ED patients (e.g. drug-seeking patients, patients seeking primary care) who foster misrepresentations of their symptoms and their true identities. This idea gets to the crux of the use of “misrepresentation” for the purpose of lying, purposeful omission, and the use of strategic ambiguity. Goffman suggests, “Sometimes when we ask whether a fostered impression is true or false we really mean to ask whether or not the performer is authorized to give the performance in question” (Goffman, p.59, 1959). Triage nurses struggle to determine which patients are “authentically” in need of urgent care, and which are adopting words and actions that misrepresent the true nature of their situation.

Goffman claims the “performer can be fully taken in by his/her own act; he/she can be sincerely convinced that the impression of reality which he/she stages is the real reality” (p.17). Conversely, in the other instance, “the performer may not be taken in at all by his/her own routine.” To help explain the various tensions and power struggles associated with dramaturgy, Goffman offers many concepts, but the following concepts appear very well suited to help unpack the clinical mindset of how triage nurses approach triage encounters: (a) Front; (b) Appearance; and (c) Manner. The first component of Goffman’s dramaturgical analogy is the element known as “front” also known as the Front stage or, the “part of the individual’s performance which regularly functions in a general

and fixed fashion to define the situation for those who observe the performance” (Goffman, p.22, 1959). Although I will discuss additional intricacies involving the “front” shortly, the concept of “front” can be classified by not only the performance, but also the physical setting in which the performance occurs. As Murphy (2009) explains, the front “is the regular and fixed part of an individuals’ performance – it is the proper setting where the actor must fulfill the ‘duties’ of their social role and communicate the activities and characteristics of the role to other people in a consistent manner” (p.35). Therefore, during ED triage encounters, the “front” is considered the location where the relationship with the triage patient is initiated (i.e. triage front desk); where the communicative exchange or the performance/medical encounter occurs; and the place where the patient’s medical condition (i.e. emergency, acute, or chronic) is determined (John, 1996).

The “front” also includes physical details conveying signs regarding cultural, racial, and socioeconomic status. Specifically, assessments can be made by either the triage professional or patient regarding the other’s material possessions (i.e. watch type, clothing), physical characteristics (i.e. height, weight, attractiveness), and verbal/nonverbal communication cues (i.e. bodily gestures, posture, speech). Goffman indicates that these signs are stimuli, which should be divided into two subgroups—“appearance” and “manner.” Appearance reveals one’s current state of social status. The triage nurse conveys his or her status by wearing scrubs or other medical uniforms, having an official name badge, and having a stethoscope or other medical equipment. A patient’s social status is conveyed by factors such as clothing, accent, and insurance status.

Manner refers to those stimuli that inform the other(s) of the type of interactive role that a performer is playing during a communicative exchange. For example, “manner”

seeks to inform or warn us of possible interactive red flags (i.e. aggression, discordance). Manner can be conveyed by appearance. For instance, as it pertains to “appearance,” patients can dress in extravagant garments to project a certain social status or sense of identity. For triage professionals the challenge is to identify which of these cues provide important information about the patient’s medical (including emotional) condition.

As Goffman states, “When an actor takes on an established social role, usually he/she finds that a particular front has already been established for it” (Goffman, p.27, 1959). Triage encounters take place in institutional hospital settings that collectively cue patients as to certain ways to be a patient. People become “patients” when they enter the ED and begin following certain routines/protocols consciously or even unconsciously in order to correctly perform the patient role and receive the care to which they are entitled in this role.

**Front stage and back stage behavior.** Another important aspect of Goffman’s dramaturgical framework are the two regions that capture the theatre of a performance. Goffman describes “a region as any place that is bounded to some degree by barriers to perception.” Additionally, “regions vary, of course, in the degree to which they are bounded and according to the media of communication in which the barriers to perception occur” (Goffman, p.106, 1959). This idea is extremely important in defining the various regions or spaces that capture the communicative style of the triage nurse. What Goffman is telling us is that the region influences the communication style of the triage nurse.

As discussed earlier, from the perspective of the triage nurse, the first region, the “front” or “front stage,” is the region that is classified not only by performance, but by the physical setting in which the performance occurs visible to the patient. Therefore,

arguably, the portrayal of how the triage nurse and/or patient desire to be perceived by the other is constrained.

The second region that requires further investigation is the “back region” or “back stage” area of the performance. The “back stage” region should be considered the location where a “team” or performer decides to “let their hair down.” This is the location where the “performer can relax—he/she can drop his/her front, forgo speaking his/her lines, and step out of character” (Goffman, p.112, 1959). Generally, the back region is cut off or partitioned from the audience, allowing performers the ability to speak freely without consequence from audience members. Although most ED literature describes the absence of a back stage region, I did notice that during times of low patient census, triage nurses engaged in discussions about their “real” impressions (at nursing station) of certain patient presentations. As Tanner and Timmons (2000) state, the back stage “theatres are tucked away out of sight, sometimes in the basement” (p.977) –far out of sight of patients and relatives. Clearly, the “back stage” region is reserved for the triage nurse and not the patient. This freedom provides the triage nurses the anonymity to engage in sexual gesturing, profanity, gossip, eating, and complaining.

Although the “back stage” region is a place where triage nurses can find great comfort and solace, there are certainly palpable pressures that one must endure even with team colleagues. First, as posited by Goffman, “When the audience (other triage nurses) is not present, each member of the team is likely to want to sustain the impression that he/she can be trusted with the secrets of the team and that he/she is not likely to play his part badly when the audience is present” (Goffman, p.130, 1959). Thus, each performer wants to project to other team members a sense of honesty, integrity, and loyalty.

The second pressure internal to a team involves “moments back stage when the performers will have to sustain one another’s morale and maintain the impression that the show that is about to be presented will go over well or that the show that has just been presented did not really go over so badly” (Goffman, p.130, 1959). This, I believe, promotes a collaborative atmosphere, and possibly leads those who do not feel the collaborative spirit to experience a sense of isolation.

Third, if the team contains representatives of fundamental social or class divisions, such as experience level, cultural background, and racial makeup, then some discretionary measures will be needed on the freedoms of back stage activity (Goffman, 1959). Hence, as previously alluded, this is possibly where elite groups form within team oriented organizations. Regardless of the inherent pressures that performers endure, probably the greatest tension is navigating from “front” to “back.”

In terms of the “back” for patients, ED triage waiting areas and restrooms cannot be defined as back stage due to (1) the ongoing pressures that patients experience in managing their performances and (2) due to safety concerns (i.e. suicidality, drug use, general clinical monitoring), these areas are constantly monitored by triage staff and ED security. Ultimately, while all these aspects of back stage that have been discussed are important, there is little back stage either in time or place in the ED for triage nurses or patients.

**Hierarchy.** During the triage process, the person in authority (the triage nurse) assumes an authoritarian position, because the healthcare consumer (compared to users of other services) is relatively less knowledgeable about the technical aspects of healthcare services and choices (John, 1996). Not unlike other relationships, there is an “influencer”

and “one being influenced.” Generally, in the case of the triage environment, the influencer (healthcare professional) is perceived to be the authority who dictates the script (i.e. treatment course) and the stage (i.e. location of treatment) in order to facilitate patient care. In order for this process to occur, the influencer must take a position of authority at the onset of the encounter to ensure that the one being influenced follows the script. This is not to say that during certain segments of any form of relationship that egalitarianism cannot exist, but for ED triage to work efficiently, the patient must become the “influenced” and play to the rules dictated by the triage nurse. However, the patient at times must be the “influencer,” which first occurs either at the onset of the triage visit (i.e. when the patient is telling their story) or when a patient is accompanied by a family member or friend and the triage nurse depends on this person - often due to patient inability (i.e. language barrier, clinical situation) to be the “influencer” in order to communicate the patient’s story. This process can be described in dramaturgical terms as a joint performance between actors with different but related objectives.

Goffman captures this idea when he explains how actors consciously or unconsciously enter into a “working consensus.” This “working consensus” provides us an interesting lens through which to view how triage professionals and patients may consciously or unconsciously assume certain roles based on perceived hierarchy. As Goffman said, “In service occupations, the specialist (triage professional) often maintains an image of disinterested involvement in the problem of the client (patient), while the client responds with a show of respect for the competence and integrity of the specialist” (Goffman p.10, 1959). Thus, the patient willingly assumes the lesser role to establish and maintain a “working consensus” with the triage professional in order to facilitate receiving

emergency medical attention. Conversely, to accomplish the same “working consensus,” it is highly likely that the triage professional assumes the position of power to mitigate any semblance of incompetence or inexperience, which can discourage the patient.

Hierarchy also influences how relationships develop and change as interaction occurs. This idea certainly plays a role in ED triage, “Whereby triage nurses act as an adjudicating panel judging the clinical data before them through the appraisal of the way patients act out their problems and narrate their stories” (Edwards & Sines, p.2445, 2007). However, even though the patient has some influence over the triage nurse, the triage nurse is “in charge” of when the patient is seen by other ED staff. In many cases the patient may try to exert their influence by using terms such as “chest pain” or “suicidal ideation” in order to provoke a response (i.e. obtaining overnight stay in the ER, improve ED wait time). Ultimately though, for triage to ‘work,’ the triage staff dictates the pace of the ED by establishing rules and scripts to ensure the process of triage flows efficiently.

These rules or scripts are established by ED administrators with the expectation that triage nurses articulate their scripts with sound clinical judgment and discernment. However, one of the many challenges associated with the triage nurses ability to perform this script, is to create an environment where the patient feels comfortable and trusting of the triage nurse. As Edwards and Sines suggest, “When initiating social encounters, it will be in the interest of the individual to control the conduct of the other, especially their respective treatment of him/her, by influencing the definition of the situation that the other comes to formulate” (Edwards and Sines, p.2448, 2007). Essentially, the performative act which enables the triage nurse to get the patient to follow the script is

accomplished by the triage nurse conveying the kind of impression that the patient feels comfortable and trusting to follow.

As has been widely discussed throughout public health literature related to health disparities, trust is not always easy to facilitate between patients and healthcare professionals. There are numerous examples of how trusting those in charge was not in the best interest of the patient – the Tuskegee Study to name but one notorious example. As many have argued including Atkinson (1995), “In the face of a performance, it is natural for one to feel skeptical of the impression the performer seeks to give, as people have to establish their credentials and the credence to be attached to their words” (p.117). Perhaps, may be in a subset of ED triage patients (i.e. drug-seeking, uninsured) due to their habitual use of ED triage, the ability to establish honesty and trust presents a reciprocal challenge, where both parties are overtaken by skepticism due to preconceived intentions or impressions of the other’s past/current performance(s). Ultimately though, if the triage professional is able to communicate their authority then the triage encounter “gets off on the right foot” and reinforces the triage professional’s competence and experience. Invariably, in order for this necessary process to “get off without a hitch,” the patient’s performative objectives are to comply with ED routines while simultaneously maintaining the integrity of their performance of illness.

Goffman’s dramaturgy provides a useful lens with which to explore the communicative intricacies of the triage process by taking into account the unique context of the ED, and highlighting the performative nature of interactions between patients and triage nurses. I now turn to Browning’s work on lists and stories, which also provides a theoretical foundation for the present study.



**Browning's theoretical framework.** Browning's theory of lists and stories in organizational communication can also potentially provide insight into the ways in which triage nurses interpret patient performances. An important component of the patient's performance of someone needing emergency medical care is revealed by their story, which is conveyed to the triage nurse in a interview. Patient interviews occur over 200,000 times in the professional lifetime of a medical professional (Schleifer & Vannatta, 2006). The triage interview provides the platform for triage professionals to hear the patient's narrative and observe verbal and nonverbal cues. In order for the patient to receive appropriate medical care, the triage nurse has to evaluate the performance and translate the narrative into a list of clinical actions.

For Browning (1992), *lists* are technical communication "because their legitimacy is based on the belief that technique—a set of specific steps—will lead to identifiable, predictable outcomes" (Browning, p.283, 1992). Specific to the triage process, technical rationality involves classification and the making of lists which formalizes the process of triage, allowing for the routinization of how triage professionals plan and develop their scripts regarding triage decision-making (Eisenberg et al., 2005).

Narrative rationality, on the other hand, is essentially the patient's story, the reporting of one's experience. In terms of the triage experience, the patient is the owner of the story, which unlike lists or technical rationality, does not have to conform to the same discursive standards of causality, chronology, or even relevance (Eisenberg et al., 2005).

***The static nature of the list.*** Browning suggested lists and stories are dialectically related in that the list provides a sense of rules and/or template that ensures that it operates with standards, accountability, certainty, and reportability. The story can assume a

tone of embellishment, romance, drama, and humor (Browning, 1992). This dialectical connection results in both the author of the list and the author of the story formulating their positions from two very different places which align nicely with the primary objectives of both the patient and the triage nurse. The patient tells a story with the goal of being deemed worthy of receiving medical care, and the nurse translates the story into an ESI severity level, list of next steps, or protocol for managing chest pain, etc. Browning explains that the list is instructive—“It tells us how to act in regard to a particular goal” (as cited in Cooper & Burrell, p.93, 1988); for the triage nurse, identifying and caring for the sickest patients. The list is predetermined; it is an “already made up mind” of preexisting “answers to questions,” that is, certain symptoms, words or observations trigger specific clinical actions (Cooper & Burrell, p.94, 1988).

Because the list represents the technical rationality on which clinical medicine rests, it tends to dominate in triage in order to provide flow and efficiency. The list provides triage professionals a roadmap or rule of thumb that is useful in sifting through and acting on patient narratives. For example, lists can be employed to detect faulty reasoning; they are propositional – what should be done? They are evaluative and require the patient (a) to lay out facts, and (b) to present ideas that answer questions such as: Where do you feel pain? Have you had this pain before? How long have you had this pain?

This translation from list to story contributes to at least one of the potential vulnerabilities of the ED triage encounter. Eisenberg et al (2005) studied the handoffs between shifts in the ED and concluded that ED professionals can sometimes be resistant to new information that doesn't conform to their initial list/diagnosis and therefore, “effective communication walks an improvisational tightrope stretching from the meaning of

technical results and procedures on the one hand to the patient's lived experience on the other" (p.395). The tendency for ED professionals to stay with the original diagnosis (or the first translation of the patient's story into a clinical list) can lead to errors, missed diagnoses, and other adverse events for patients. Ideally, the clinical list would adapt to new information, either from the patient's narrative, or test results, or nurses' observations, but since clinical lists are lists of actions, these are often completed before a new translation in response to discordant information is enacted.

How patients' stories are understood and acted upon by triage professionals is unclear. Bakhtin stated that "telling a story is a deed, but it is impossible to understand the deed except as recreated by the listener" (Browning, p. 291, 1992). The listener, in this case is the triage professional, uses past experience, decision aids, and other tools to interpret the patient's story and determine an appropriate course of action. The patient and triage nurse are engaged in a complicated performance, in a complex environment, which Goffman's work on dramaturgy can help describe and clarify.

## **Chapter Summary**

This chapter first described the nature of the ED environment and the pressures that make the work environment difficult and high stakes. Then the literature about the cognitive processes of triage nurses during patient encounters and initial decision-making was reviewed. The literature review revealed a considerable gap in our understanding about which tools triage nurses actually use to make sense of patient narratives. Thus, this literature provided us a glimpse into the role of decision aids, knowledge, experience, and intuition, and how they impact ED triage nurse decision-making. For instance, current research is ambiguous in terms of clarifying the true clinical impact that experience plays

in ED triage. Do novice triage nurses rely less on intuition and more on decision aids due to less experience? Also, can judgments made with mental shortcuts lead to error-laden decisions within the triage environment? Overall though, while the studies reviewed provide some understanding of triage decision-making, they also make the argument that the communicative exchange and decision-making process between patients and triage professionals continues to remain an enigma. As a result, two research questions were formulated: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performances?

Next, two theoretical perspectives were described that are potentially useful frameworks for this study. Goffman's dramaturgy perspective seems especially relevant to understanding the scripted interactions between triage nurses and patients. It is these interactions that define the triage encounter, and the theoretical use of dramaturgy may allow these complex processes to be better understood.

Goffman's dramaturgical model is well suited to shed light on some of the most critical communicative elements associated with ED triage decision-making. It is easy to identify with the scripts, roles, and costumes associated with the metaphorical stage which is the clinical setting (Holmes, 1992). Furthermore, as Holmes suggests, "The hospital may be seen as the theatre, and the nurses, patients, relatives and others as actors or spectators, whose scripts and dialogues are enshrined in the discourse of nursing, and the discourse of patienthood" (p.941). Thus, my study is designed to focus on the triage encounter to gain a clearer understanding of the communicative idiosyncrasies of ED triage, and Goffman's work on dramaturgy may enhance our insights regarding the communicative exchanges shared between patients and triage nurses.

As a result of the complexity of triage encounters, our understanding of the triage sensemaking process may also be improved by utilizing Browning's ideas about lists and stories. Browning's work may help bring into focus how triage professionals translate patient stories into lists that direct clinical actions. This framework may help us better understand the process of how patient stories are deciphered by triage professionals, and how they rely on scripts (i.e. checklists) to help inform the process of translating patient stories into actionable lists. Browning's lists and stories ideas may clarify some of the questions that may contribute to our understanding of the triage encounter. For example, how do triage professionals navigate the translation from patient stories (narrative rationality) and acceptable medical diagnosis (technical rationality)? What is lost and gained in this translation, and what particular vulnerabilities emerge in this process? Overall though, while the studies reviewed provide some understanding of triage sensemaking, they also suggest the need for further investigation of the triage sensemaking process, and thus, by employing some critical elements of Browning's lists and stories (i.e. narrative and technical rationalities) should help unveil many of the communicative intricacies associated with the triage encounter.

Through this study, I plan to leverage Goffman's dramaturgy and Browning's lists and stories as a lens to explore the communicative intricacies of ED triage. I begin this study by first discussing the design of the study in Chapter 2 (Methods). In chapter 3 (Results), I describe the findings of the study informed by the research questions stemming from the semi-structured interviews and observations. Finally, in Chapter 4 (Discussion), I provide a critical analysis of the translational implications of the research regarding the ED triage communicative processes.

## **Chapter 2**

### **Methods**

To obtain an understanding of the joint performance shared between patients and triage professionals, a qualitative study was conducted to explore the communicative exchanges that underscore the patient-nurse ED triage encounter. Such an understanding may inform health care professionals about the various ways triage nurses make sense of ED patient stories. Toward this end, two research questions were explored: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performance?

The use of semi-structured interviews and observations provided a robust qualitative platform for examining these research questions. First, the semi-structured interview questions provided an opportunity for participating ED triage nurses to share their perspectives surrounding ED triage sensemaking. Second, the interactions (verbal and nonverbal) between triage patients and triage nurses were captured during the patient observation phase of the study. Additionally, field notes taken during the observations were included in the analysis, creating a triangulation of the findings that led to the creation of themes for reporting of the data.

In this chapter I discuss the methods and procedures used to conduct this study. First, I specifically describe the inclusion criteria for participation in the study. Second, I explain how the research data (semi-structured interviews and observations) were gathered and analyzed.

## **Settings and Participants**

This study was conducted at a level I Trauma Center in a large teaching hospital located in the Southeastern United States. The criteria used for site selection were an ED facility that would provide for demographic diversity, patient volume, and the willingness of healthcare professionals to better understand the communicative processes that impact medical encounters within ED triage. As a result, a Southeastern Hospital (Level I Trauma Center) was identified as an appropriate research facility. This trauma center nearly sees 100,000 patients annually and is equipped to treat the most critically injured and acutely impaired patients 24 hours a day, 365 days a year. The ED is approximately 65,000 square-feet, and has the capability of treating 250 patients at one time. Also, the facility contains 66 private treatment rooms for adult, pediatric, minor emergency, chest pain, stroke, psychiatric, and observation patients. Moreover, this facility is a private not-for-profit hospital that is legally mandated to treat all patients that enter their ED.

## **Triage Nurses**

As discussed in Chapter 1, because experience may play a significant role in how triage nurses perform their roles, sixteen triage nurses with varying levels of experience working as ED triage nurses were selected to participate in interviews. Demographic information and level of experience for each participant is included in Table 1.

Table 1

*Breakdown of Demographic Characteristics of 16 Participants*

Experience level	Credential	Sex	Race
10.0	RN	Female	African American
5.5	RN	Male	Caucasian
10.0	RN	Male	Caucasian
15.0	RN	Female	African American
2.0	RN	Female	African American
11.0	LPN	Male	Hispanic
9.0	RN	Female	Caucasian
11.0	RN	Male	Hispanic
15.0	RN	Female	Caucasian
2.0	RN	Female	African American
6.0	RN	Male	Hispanic
22.0	RN	Female	Caucasian
8.0	RN	Female	Caucasian
5.0	RN	Male	African American
17.0	RN	Female	Caucasian
12.0	RN	Female	African American

*Note.* Additional characteristics of triage nurse participants can be found in Appendix A.

The average level of experience among the 16 participants in the study was 10.0 years. Therefore, based on the criteria expressed in the literature review, the triage participants in this study tended to be more experienced based on the calculation of greater than 5 years of experience is deemed as “more” experienced. In terms of additional demographic information, which is illustrated in Table 1, the study consisted of 1 licensed practical nurse (LPN) and 15 registered nurses (RNs). Basically, LPNs and RNs are distinguished by levels of experience and education (both professions require licensure). LPNs are generally limited to ‘hands-on’ nursing care, which in most cases includes 1 year



of education (i.e. community college). Conversely, RNs assume many broader care plans including enacting treatment plans and providing administrative oversight of LPNs and other nursing personnel. Additionally, RNs undergo approximately 2-4 years of education (i.e. associate or baccalaureate degrees). In terms of the gender distribution of the participants, of the 16 triage nurses there were 6 males and 10 females. Last, the racial makeup of the 16 triage participants consisted of 6 African Americans, 7 Caucasians, and 3 Hispanics.

### **Semi-Structured Interviews**

This study (semi-structured interviews and patient observations) occurred over a 4-month period/exceeding 100 hours. The 16 interviews were audiotaped and transcribed, and consisted of semi-structured questions that sought to clarify the ways in which triage nurses relied on experience, personal biases, vital signs, and observations as they made sense of ED patient stories. Not surprisingly, many of the themes that were captured in the interviews, which ranged from 30 minutes to almost 1 hour and 45 minutes long (with minimal note-taking), reflected much of what has been discussed in the ED nursing literature, but were not limited to those discussions. Also, my choice to use interviews as a method was validated in much of the research literature surrounding interviewing. This literature suggested that the use of interviews provides a tangible pragmatic method in researching unexplored or difficult topics (Adamson, Goberman-Hill, Woolhead, and Donovan, 2004). Interviews also provided opportunity to gain insight into what the essence of this study is about - uncovering how triage nurses make sense of patient stories.

The study received the approval of the USF Institutional Review Board (IRB) (approval number: 00000382). Individual nurses who agreed to participate in interviews

provided written informed consent. The ED facility identified two nurse managers (Roberta and Jennifer - *all names have been changed to protect the confidentiality of participants*) who would help with staff coordination and logistical matters associated with the interview and observation process. Generally, Roberta worked the earlier shifts (i.e. 6A-6P), and Jennifer worked later shifts (i.e. 6P-6A).

First, after discussing with both Roberta and Jennifer regarding which triage nurses would serve as reliable triage participants regarding semi-structured interviews, I developed a criteria based on the following characteristics: (1) Triage nurse participants had to be willing to invest 30 minutes to 1-hour and 45 minutes for interview; (2) To the best of our ability, the triage participants had to mirror the population that this ED represents (i.e. race, sex); and (3) Triage participants had to vary among all skill sets and experience levels.

Second, I determined based on ED logistics (locating a quiet private area), all interviews would be conducted in the ED staff office in a private conference room. This would provide the privacy required for these participants to feel comfortable responding to the interview questions. Additionally, all triage nurses worked approximately one of 52 shift cycles: (i.e. 7A-7P, 9A-5P, 7A-5P), so it would be easier to coordinate interviews at the beginning or the end of participating triage nurses' shifts.

Inasmuch as this ED facility was accustomed to having researchers revolving in/out of their ED, I was concerned how receptive this ED staff would be of my (including research team) presence in their ED. However, having the support of Roberta and Jennifer was both welcoming and necessary in terms of navigating the ED and gaining support of the participating triage nurses for semi-structured interviews and patient observations. All of

the triage nurses at this facility were made aware of the study (by the ED administrators at this facility prior to the initiation of the study), thus reducing the potential for misunderstanding when approached for participation in semi-structured interviews or patient observations.

I will admit though, in a few cases, that when explaining the purpose of this study: “Understanding triage sensemaking,” some of these nurses had no clue what this meant. Therefore, based on what I discovered in the literature review, replacing the word ‘sensemaking’ with ‘decision-making’ provided the clarity and the context these triage nurses required to understand the scope of the study.

Each interview was conducted in a private conference room in the ED office, where I reviewed the consent form with the triage nurse (see Appendix B). During review of the consent form, I discussed with all triage participants that certain themes captured in the recorded interview would be made available to the research team at this ED facility. These include: (a) issues or concepts that provided insight into research questions; (b) ideas that would address gaps in communication or ED literature; and/or (c) concepts or ideas that would help improve efficiency or communicative practices within this ED facility.

Having provided this reassurance, I strove to bolster the confidence of the 16 participants and to provide a sense of the importance of the study and of their participation. Hence, there were no verbalized concerns among any of the 16 participants regarding concerns about confidentiality. Interestingly, because this facility was accustomed to researchers studying many aspects of their ED, there were few concerns over issues of confidentiality regarding the recorded interviews. This provided opportunity to establish rapport with all potential triage nurse interview participants prior to their

respective interviews. As a result, each participant appeared to be comfortable and engaged during the interview process. I felt that having pre-established rapport (developing relationships with these participants during patient observation phases of the study) with interview participants would most definitely reassure participants of issues surrounding privacy, and provide a more engaging comfortable discussion during interviews.

**Awareness of communicative tensions.** I conducted 15 interviews (see Appendix C), and Meagan, research assistant (RA) conducted 1 interview. My goal was to be as impartial and participant directed as possible during the semi-structured interviews. Although rapport building is a necessary component of interviewing in terms of interviewee comfort and honesty, effective interviewing will always depend on some of the following skill sets: (1) conversational ability; (2) strategic exercise of one's social skills; and (3) sensing the interviewee's experience level (Jorgenson, 1992). Hence, with each of the 16 interviews, the goal was to establish rapport with the interviewee, without biasing their responses.

At the conclusion of all interviews triage nurse participants received a \$25 gift card for participation. Also, participants were asked, "Do you have any additional questions for me?" Many seized this opportunity to vent about concerns or displeasures about this ED. For instance, Gwendolyn, an African American triage nurse that participated in the semi-structured interviews, claimed "This place could do better addressing the needs of Sickle Cell Anemia patients." After I asked her to expound on her concern, she stated, "This place needs more training for non-African American staff regarding issues like Sickle Cell."

## **Patient Observations**

At the onset of the study, I determined that most of the triage traffic (patient encounters) occurred at either the pivot desk (where the initial assessment occurs when the patient enters the ED triage area when they arrive via their own transportation) or in the subtriage area (place where patient the undergoes additional triage assessment in a private room adjacent to the waiting room). These two areas accounted for approximately 80% of all observations (remaining percentage of observations: 10% ED lobby and 10% ambulance bay triage area). Utilizing the method of patient observations allowed me to gain a fuller understanding of behavior, meanings, contexts, and events that influence the values and choices that triage nurses employ in the decision-making process in these two locations within this ED (Berkwits and Inui, 1998).

The two charge nurses (Roberta and Jennifer) agreed to extend our research team permission to conduct our observations. The charge nurses informed the triage staff about the study during staff meetings. Whenever our research team was present to conduct triage observations either Roberta or Jennifer introduce us to the nurses we wanted to observe and ask their permission. Written consent was not required by the IRB or the study facility for the observations.

**Exclusion and inclusion criteria.** In general, the focus of the patient observations was only to observe those triage patients that access the ED triage area. Therefore, the exclusion criteria for this study consisted of all of the following: (a) unconscious ED patients; (b) mental health patients; (c) patients who arrived by ambulance patients and went directly to the trauma area; and (d) children/adolescents under the age of 18. Conversely, the inclusion criteria of the study was restricted to all conscious ED patients

above the age of eighteen that entered this facility’s ED during the 4 months of this study. There were also additional parameters: (a) patients’ voices were not recorded (no recording instruments were present during patient observations); (b) patient and researcher interactions were solely observational (there was no engagement in unsolicited conversations with ED patients); and (c) triage patient observations totaled 110 recorded hours which were evenly distributed over all shifts, times of day, and days of the week.

**Pivot desk flow and observations.** In order to provide some context regarding patient observations, it is critical to understand how patients flow through the various spaces within this ED in order to obtain medical treatment. Therefore, I recruited Joyce (pivot nurse) to help me design a flow chart to underscore the various pathways a patient can take when entering this ED. For example, Figure 1, outlines this flow:

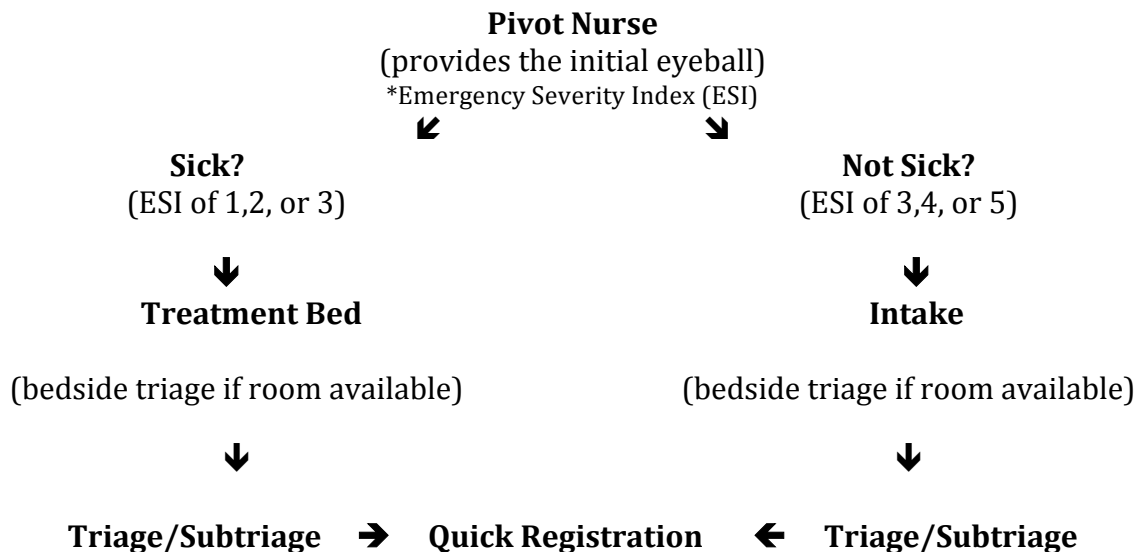


Figure 1. Patient flow.

The pivot nurse at this ED is usually the first contact (sometimes referred to as the “first eyeball”) with an incoming triage patient. As a result of this crucial responsibility, the pivot nurse is charged with communicating and coordinating patient flow with the Communication Nurse. The Communication Nurse (who is not displayed in Figure 1) is ultimately responsible for assigning patient beds within the ED, and is physically located near the ambulance bay in the ED to balance department needs and flow. The Communication Nurse also communicates with emergency response personnel to get initial information about patients arriving by ambulance or other emergency vehicles. This is also the location where the Charge Nurse for each shift is usually found, unless they are solving other emergent issues.

As part of the “initial eyeball” which can be characterized by a quick look/rapid assessment to sort patients based on initial chief complaint - determining if the patient is “sick or not,” the pivot nurse identifies initial Emergency Severity Index (ESI) levels. Thus, an ESI level of 1 or 2 (e.g. possibly could die if not treated immediately) prompts the pivot nurse to direct the triage patient to an available treatment bed in conjunction with the communication nurse and charge nurse. Moreover, in collaboration with the communication nurse and charge nurse (who at this ED generally sits next to the communication nurse at the ambulance bay), the pivot nurses expedite ESI levels 3,4,5, to the intake area (location where patient is screened to determine individual’s eligibility for treatment or services).

The pivot nurse also coordinates the ongoing processes associated with escorting triage patients to their assigned treatment rooms and changes location within Electronic

Medical Records (EMR) system (i.e. Epic software), and assigning/reprioritizing with communication nurse patients to pods (based on age and acuity).<sup>1</sup>

The nurse at the pivot desk also keeps a watchful eye of the waiting room, which includes answering questions regarding ED processes and the patient's status in the process; performing an ongoing "quick look" of patients in the waiting room to determine any status changes indicating a need for immediate care; and delegating staff assigned to triage area (techs/triage nurses/paramedics/LPNs) to perform reassessments.

A total of two people usually staffed the pivot desk area at this ED facility. The first person is the pivot nurse, and the second is the registration technician (tasked with the responsibility of inputting patient information into the computer, but not responsible for triaging patients). Additionally, to the left of the pivot nurse a patient care technician (PCT) or runner (responsible for coordinating and directing ED visitors). During observations, with the permission of the pivot nurse, I would sit directly behind the pivot nurse and registration technician. This allowed me a direct view of ED patients' walking into the ED approaching the pivot desk.

Data during these observational periods was collected by pen and paper, and during periods when no patients were at the pivot desk, I would proactively engage the pivot nurse or registration technician in order to clarify my observations of the pivot area. For example, I remember clearly on one occasion, an angry visitor aggressively approached the pivot desk demanding to see a patient that had just been admitted to the ED. Once the patient left the pivot desk, I asked Suzy (pivot nurse), "Why do you think he was so aggressive in demanding to see this patient?" Suzy responded, "I have no idea, but if he's

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<sup>1</sup>Appendix D highlights floor plan of research facility which will also display the positioning of the communication nurse



not on the list, he's not going back." She continued to state, "Due to gang affiliations, we have had visitors try to 'take out' (kill) ED patients - there is a lot going on at the pivot desk, this is why my job is so critical."

As previously discussed, I never solicited verbal contact with ED patients, but, in most instances patients would either verbally or nonverbally (i.e. eye-contact, head-nodding) acknowledge my presence. Incidentally, this could be due, in part, to the recommendation of this EDs research team suggesting that I wear scrubs while in the ED (to blend in with triage staff). However, I believe, whether I had worn scrubs or not, patients would have assumed that I was part of the triage team. Thus, in those cases where patients directed clinical questions to me, I always responded by saying that I was an outside researcher at the local university.

Generally, this answer sufficed, but I recall one case where my presence deterred a patient from candidly expressing their clinical complaint at the pivot desk. In this case, an openly homosexual (patient verbalized this information at the pivot desk) African American male who confessed to having Human Immunodeficiency Virus (HIV) approached the pivot desk awkwardly complaining of abdominal irritation (rash), but instead, Suzy later told me that this gentleman was uncomfortable sharing in front of me, that he actually had an anal sore and not an abdominal rash. This episode, as Jorgenson acknowledges, highlights the difficulty of the observer not to get "drawn into" the role of active participant (Jorgenson, 1991).

**Subtriage flow and observations.** Once the "initial eyeball" occurs at the pivot desk, the patient is generally triaged to the ED patient lobby where the patient awaits the next step of the triage process—subtriage. The flow that is commonplace in the subtriage

area was illustrated in Figure 1. However, before some additional elements represented in those observations are discussed, it is important to mention observations associated with the ED patient lobby for the purpose of maintaining the general successive flow of patients at this ED. Again, the patient lobby observations accounted for approximately 10% of all observations, and provided much insight regarding topics such as patient wait times and patient self-triaging.

Essentially, after the “initial eyeball,” and it is determined that the patient will go through the triage process, the patient is then given a pager. When the pivot nurse pages the patient, the patient comes up to the pivot desk, and generally next, the patient would be triaged to the subtriage area. The determination of when a patient is paged for continued treatment (triage) is based on patient acuity. This process underscores what is known as “patient wait time.” At this ED, the average wait time was 96 minutes. Wait times are considered to be very important metrics that are used by EDs to measure markers such as triage effectiveness and efficiency, and this was no different at this ED. As discussed by Goodcare and Webster (2005), “Prolonged waiting times for patients in the ED are associated with reduced patient satisfaction and an increased risk of leaving without being seen,” often leading to poorer health outcomes (p.93).

Another consequence associated with wait times which was observed during this study, was what occurred when a patient perceived their wait time was excessive. This sometimes led to disturbances that I observed between patients in the lobby. Generally, a patient had no idea why another patient was in the ED. Therefore, when a patient observed another patient’s pager going-off, and they felt slighted, these patients directed verbal outbursts at pivot nurses and other patients. These disturbances were a result of what I

call patient “self-triaging.” Specifically, this is when patients try to interpret the clinical presentations of each other to determine acuity. For example, one male patient was incredibly angry because another patient who came into the ED after him, had gotten back to the subtriage area before him. He began screaming and yelling as he approached the pivot desk at the pivot nurse saying, “Don’t you know that I might have a broken nose!” The irate patient continued to state, “Why in the hell does she get back before me!” I recall the pivot nurse, Jackie, very calmly telling the man, “Often times a person’s sickness cannot be seen on the outside, because their sickness is on the inside.” The man shrugged and walked away. Jackie later told me, “It can be a monster to keep them under control and manage everything else.”

As a patient enters the subtriage area from the patient lobby, the patient is immediately approached by a triage nurse, and brought into a subtriage room (place where patient undergoes triage assessment). Generally, in this ED, there are three chairs in this small room: In one of the chairs, sits the triage nurse; the second chair, nearer to the triage nurse, sits the patient; and the third chair closest to the outside wall, will often sit a family member or friend if accompanied with the patient. Additional features of the subtriage room are a computer (used to input patient information by triage nurse), blue phone (24/7 language interpreter is available for non-English speaking patients) and medical equipment (i.e. pulse oximetry, blood pressure cuff).

Probably the most unique aspect of this ED was a process that was recently instituted by ED administrators to improve subtriage patient flow – the mid-level provider. This individual (generally a nurse practitioner or a third-year medical resident) is tasked with providing heightened clinical insights during subtriage assessments to the triage

nurse. The belief is that placing a third-year resident or nurse practitioner in the subtriage area would help improve efficiency and/or patient flow due to the ability of these providers to initiate labs and other orders without consulting one of the emergency room physicians first. Interestingly, in many cases where the mid-level provider was a third-year resident – a doctor, appeared to provide a great relief to patients. Essentially, once the resident introduced himself/herself as doctor, patients seemed less anxious, and possibly believed that their care was becoming more official because now the doctor was involved. Interestingly, Jeanmonod et al. (2013) suggest that 20% of patients would prefer to be seen by a doctor rather than a nurse practitioner.

Generally, the mid-level provider served as a point of logistical reference for me during observations. In most cases, I stood in the doorway of the subtriage area behind the mid-level provider (data during these observational periods was collected by pen and paper). Very rarely did a patient ask me directly or through the triage nurse “who are you?” On a few occasions, the triage nurse would proactively acknowledge my presence by telling the patient that I was a researcher at a local university.

Directly behind the individual subtriage rooms at this ED, was a subtriage treatment room. Patients who required additional testing such as labs, needed a temporary bed, or anyone who required emergency care (for example, to stop bleeding) were moved here for treatment. Approximately 6 patients could be cared for in this larger subtriage treatment area, where beds were separated with curtains.

Once a patient was called into one of the small private subtriage rooms, in almost 100% of my observations, the first question that was asked by the triage nurse was, “what brings you to the ED today?” Additionally, 90% of all further questions by the triage nurse

stemmed from a list that the triage nurse read from the computer that sat directly in front of them. Essentially, this list was a series of questions that populated additional questions based on the response of the patient.

Often, patients seemed to become frustrated by the 'script' (list), and sometimes would interrupt the triage nurses' questions to share more of their story, such as – the precipitating event that brought them to the ED. Almost always, the patient would be immediately redirected by the triage nurse, and told, "Listen, I need to get through these questions so I can help you." In many instances due to their medical condition, the patient was not able to answer the questions posed by the triage nurse, and, therefore, a family member or friend would have to interpret the patient's complaints for the purpose of addressing the questions generated from the triage nurse's computer.

The triage nurse's ability to get through the list of questions that were generated by the computer varied, based on a myriad of factors (i.e. patient's health literacy level, clinical condition, family members in the room). However, navigating through this aspect of the triage nurse/patient encounter generally represented the majority of the interaction. Thus, triage nurses spent minimal time, if any, on actively listening to the patient's story in its entirety. Instead, patients were asked specific questions based on computer-generated questions. However, during the portion of the encounter where the triage nurse would check the patient's vital signs, most triage nurses spent time touching patients and making eye-contact with patients, perhaps to provide reassurance, or to more accurately determine the validity of their medical complaints.

Ultimately, as Franklin, the only LPN that I interviewed stated, "Getting through the entire patient story would be great, but impossible" based on the time constraints EDs face.

Therefore, as Franklin asserted, “Once you have completed the questions from the computer, it is always good to really trust your gut.” He suggests, check if the patient is ‘warm, pink, or dry’ and even take the time to “talk to them and touch them.”

## **Analysis**

This research project was conducted by a research team consisting of four members: I (Colin Forde – African American male) served as the lead investigator (LI), and conducted fifteen of the 16 interviews and 80% of patient observations; Meagan Araujo (RA – Caucasian female fluent in Spanish and Portuguese) conducted one of the sixteen interviews and also participated in patient observations; Co-major professor, Dr. Lori Roscoe (RA – Caucasian female) participated in patient observations; and Co-major professor, Dr. Eric Eisenberg (RA – Caucasian male) also only participated with patient observations.

Data collection for the present study included interviews with the 16 triage nurses described previously, as well as 110 hours of observations in the ED over a period of 4 months. Transcriptions of nurse interviews and field notes from all observations provided the data for analysis using a grounded theory approach (Strauss & Corbin, 1998).

The grounded theory approach proved to be a useful tool for identifying themes related to this study’s research questions. One of the primary tenets of grounded theory is the use of field notes and interviews as data for analysis, such as those collected in this study (Strauss & Corbin, 1998). Additionally, grounded theory is useful when analyzing data that is embedded within cultural dynamics or professional bias (Basu and Dutta 2008).

Upon completing the patient observations, the first level of analysis consisted of open coding of the data. This consisted of sorting the data and categorizing the data in order to obtain an understanding of the emerging research themes uncovered during the observation phase. Multiple audiotaped research meetings with research assistants were conducted to collate the field notes and semi-structured interview findings. All of these research meetings were audiotaped and transcribed to obtain a clearer sense of preliminary findings. After collating the data, the data coding process began. Various categories were grouped into larger themes for data reporting (Strauss and Corbin, 1998).

Field notes from all research team members were transcribed, as were interviews with triage nurses. A thematic analysis based on a grounded theory approach was used for examining the transcriptions. Two research questions guided the analyses: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performances? The content of the transcribed field notes and interviews was grouped and regrouped in terms of categories and emerging themes with the goal of better understanding the sense-making processes used in ED triage. Each member of the research team independently coded all data from field notes and interview transcripts, and met to collectively resolve discrepancies in interpretation and categorization.

The thematic analysis started with open coding to identify discrete concepts that could be easily labeled, sorted and grouped under conceptual categories. Written data from field notes and transcripts were conceptualized line by line. Open coding was followed by axial coding that involved making connections between conceptual categories. As the grounded theory approach suggests, theory is grounded in the themes that emerged from the examination of the field notes and interview data. Theoretical integration was achieved finally by selective coding. Selective

coding was done after a core explanation had been identified that helped explain the behavior of the research participants in resolving their main concern, which in this study was identifying the sense-making processes that allowed for the sickest ED patients to be ascertained and treated first. The theoretical concepts emerged from the process of constantly comparing the data to existing codes and thematic categories.

Once all core variables were established, the data were reanalyzed using the core themes that were developed during the first round of data analysis, using selective coding to ensure theoretical integration (Strauss and Corbin, 1998). Preliminary findings identified five themes (purpose, preparation, processes, structures, and biases) that best represented the performative dynamics associated with ED triage at this Southeastern Hospital.

Utilizing grounded theory as a data analysis tool provided insight and clarity into unraveling and decoding how these five themes displayed many of the performative complexities associated with the research questions that helped to define this study. Certain assumptions were identified as a result of these five themes that provided insight into the communicative patterns that was discovered in the data. These assumptions reinforced and informed me on how grounded theory clarified many of the complex themes that were associated with answering the research questions.



## **Chapter 3**

### **Results**

This study utilized Goffman's theory of dramaturgy and Browning's lists and stories framework to better understand the ways in which triage nurses interpret and act on patient stories in an ED environment. The specific ways in which these theoretical frameworks proved helpful will be discussed in Chapter 4. Observing the communicative exchanges that underscore the decision-making process of the triage encounter and semi-structured interviews with triage nurses provided much needed insight into the research questions. Grounded theory provided a useful tool to extrapolate important themes revealed in the data.

#### **Data Collection and Analysis**

The data collected in this study consisted of field notes from 110 hours of ethnographic observation and transcribed interviews with 16 triage nurses. Grounded theory provided a flexible template to gather data, code data, synthesize data, and most important, interpret findings related to the semi-structured interviews and observations. As discussed in Chapter 2, all of the research team meetings were audiotaped and transcribed to gain a clearer sense of the study's preliminary findings. After collating the data, the data coding process began. Ultimately, various categories were grouped into larger themes for data reporting (Strauss and Corbin, 1988).

## Findings

Within this section, I provide a concise overview of the study findings that were presented to the ED administrators at the conclusion of the study. Also, I discuss in detail the findings associated with the two research questions: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performances?

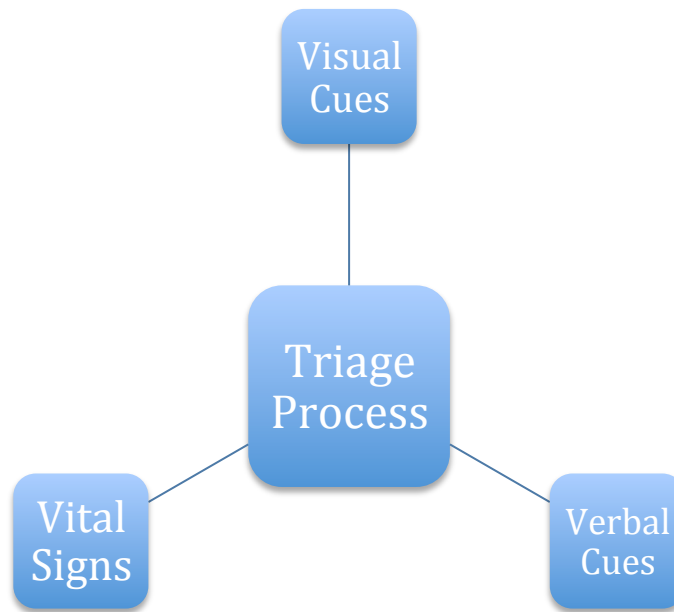
**Early findings shared with ED administration.** The research team prepared a preliminary summary of the data collected and presented the following observations to the ED administrative staff, which provides a concise overview of some of the main study findings:

1. Purpose—Most of the participants discussed the multiple purposes of triage and the difficulty of balancing them. Many stated that the general public really doesn't understand that the primary purpose is to attend to truly emergent cases. There appears to be a significant tension between three goals in particular: (a) saving lives, (b) customer service, and (c) patient education.

2. Preparation—Significant variability was apparent in the degree of preparation that triage nurses had for the role. Participants reported varying degrees of formal preparation as well as different levels of affinity for the work. Most commented that more experienced triage nurses were significantly better at the work and that there may be a better way to determine who gets assigned to triage.

3. Processes—Participants reported using various rules and strategies to perform their work. One common perspective is that it was important to bring patients' complaints into the present time as a way of narrowing the scope of their problems. Another was that

experienced triage nurses generally had an intuition (often termed “gut feeling” by participants) about who was truly sick. The research team developed a three-part model to explain the sources of data that inform triage decisions that includes vitals, visual cues (e.g., warm, pink or dry), and verbal stories.



*Figure 2.* Influences on the Sensemaking Process in Triage

There was a strong reliance on visual cues; verbal stories only became critical when there was ambiguity in or inconsistency between visual cues and vital signs. Triage nurses used protocols to facilitate sensemaking around patient stories. Results from early tests were used to improve diagnoses. A special problem reported by most participants was the difficulty of interpreting a patient’s condition without access to a reliable baseline.

4. Structures—Although there is no perfect structure for effective triage, much of the current arrangement is working very well. Participants were mostly pleased with the presence of the midlevel provider between the triage rooms, as well as with the available

communication technology. Areas where concerns were expressed and potential improvements could be made include (a) structure, function, and staffing of the pivot desk; and (b) methods for monitoring the waiting room.

5. Biases—Participants were unwilling to admit that any type of patient was treated differently from any other on-the-record. After long conversations some comments were made about differential treatment for patients who were especially unsanitary or unwashed, as well as for members of a particular ethnic group known for histrionics or uncooperativeness.

**Study findings.** This section discusses the findings associated with the two research questions: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performance? In addition, interesting findings related to bias and stereotyping are also described.

**RQ1: What do triage nurses perceive as the primary goal of triage?** Triage nurses mentioned a variety of goals for the triage process, including determining patient acuity, educating patients, efficiency, maintaining superior Press Ganey scores, and customer service.

### **Determining Patient Acuity**

Approximately half the triage nurses interviewed and observed in this study believed that the primary purpose of triage in ED is to prioritize patient acuity by utilizing various types of acuity scales. The study site used the Emergency Severity Index (ESI), which allowed the triage professionals to estimate how long a patient can safely wait for initial screening and/or medical treatment. As shared in Chapter 1, ESI is a five category system used in triage to determine patient severity/acuity: (1 = resuscitation; 2 =

emergency, 10 minutes; 3 = urgent, 30 minutes; 4 = semiurgent, 1 hour; 5 = nonurgent, 2 hours). The ESI scale was displayed on the back of the name badge of each triage nurse out of view of the patient. Although there are other types of acuity scales such as Canadian Triage and Acuity Scale (CTAS) and Manchester Triage Scale (MTS), this ED adopted the ESI which is widely accepted in ED, and expected their triage nurses to commit the levels to memory (which was observed with all 16 triage nurses).

### **Patient Education**

Educating patients was not seen as an important aspect of the triage process; only 6% of participants concluded that patient education was a crucial aspect of the triage process. While it seems obvious that patients with more knowledge about their bodies, diseases, or the healthcare system would be easier to triage, the ED is not the appropriate place because patient education interferes with efficiency. All participants stated that not allowing patients to die in the ED is important. Marcus said, (participated in semi-structured interviews) at the end of one of his shifts, in response to my question, “Hey, how did your night go?” responded by saying, “Guess what Colin. Nobody died.” Therefore, from the respondent’s perspective, the ultimate relevant outcome is not allowing the patient to die in the ED, which was viewed as significantly more critical than providing patient education.

### **Efficiency**

All 16 triage nurses claimed that efficiency is an important goal of the triage process. When asked how they defined efficiency, all 16 triage nurses acknowledged that efficiency was defined by decreasing patient wait times. It was clear that the influence of Press Ganey Scores played a significant role in the unanimous concordance among the triage nurses

regarding how they defined efficiency. As discussed, an organization known as Press Ganey developed a scoring system to help patients provide anonymous input regarding their experience at this ED through a patient satisfaction survey, which would be mailed to them upon release.

### **Press Ganey Scores**

The influence of Press Ganey scores in terms of ED efficiencies (e.g. wait times) was far-reaching, this ED established a goal that patient wait times should not exceed 2.5 hours. As discussed, the average wait time at this ED was 96 minutes, so their goal was met. However, as verbalized by Marissa (participant of semi-structured interviews), “The threat of a hospital having a disproportionate amount of bad Press Ganey Scores was a driving force to ensure that we triaged these patients efficiently, but also with good customer service.” The issue of customer service was a prevalent topic during this 4-month study, many, like Harry (participant of semi-structured interviews), who said, “customer service accounts for 90% of what we do,” and felt that it was important to provide good customer service not only from a patient perspective, but also Harry stated, “It would be good to cover my ass with ED administration.”

### **Customer Service**

Triage nurses such as Joyce reinforced this idea regarding the customer service model when she claimed, “this model was adopted for one reason, and one reason only – Press Ganey.” As discussed earlier, due to the reality that triage nurses were unaware of which patients would be recipients of this mailed survey, often as Joyce stated, “The scores added extra pressure to an already pressure-filled environment.” As cited by Press Ganey, the scores do have an impact on hospital reimbursements (Press Ganey, 2014), but also

provided critical insights regarding how wait times would affect efficiency and quality of care issues. Therefore, the triage nurses that were observed during the study were very conscious of how wait times shaped the patient experience in the ED and how wait times were perceived by hospital administrators.

Thus, as briefly alluded to in the Methods section, this Southeastern Hospitals' ED developed a "Quality Indicators Report," to in part measure factors that shape a patient's experience. This report determines certain criteria across adult and pediatric populations such as patient volume, left without treatment patients (LWT), and the average wait times (minutes) of patients entering the ED. This report provides the administrative staff both a quantitative and qualitative view to analyze trends that assist administrators in extrapolating factors that impact triage efficiency and quality of care. For example, per the adult patients that entered this ED, for the months of May through August (2011), this Southeastern Hospital averaged 6000 patients entering the ED; they averaged 5.3% LWT; and as discussed, the average patient wait time was 96 minutes.

Patient wait times were considered a hot button for both patients and triage nurses. In terms of patients, it was clear that on many occasions patients were observed negotiating and engaging in "self-triage" (process of self-diagnosing to expedite treatment) in the hopes of expediting their own care. At times, the ED lobby would resemble a flea market: a place of constant negotiation and chaos often resulting in patients' figuratively and literally jockeying for position by attempting to determine and influence the triage staffs opinions of who was sick, sicker, and/or sickest.

Conversely, wait times impacted the triage staff entirely differently. The triage staff often viewed the triage patient as a customer, and as a result, they would perform their

duties from more of a customer/service provider perspective, not unlike any other customer/service relationship. Ultimately, the goal was to ensure that the needs of the customer were always met, regardless of what the patient deemed their needs were. For many triage nurses, the patient was seen as a silent partner or customer, whose performance either aided or hindered the ability for the triage nurse to effectively triage. As one triage nurse mentioned, “a good customer (patient) is defined as someone that could follow our protocols.”

### **RQ2: How Do Triage Nurses Interpret Patient Performances?**

**Role of experience.** Almost 50% of all respondents in the study considered treating the sickest patients as soon as possible the most important element to triage regardless of patient theatrics. This assessment underscores the essence of triage—to appropriately tier patients’ based on clinical needs. Penny, one of the triage nurses I interviewed, discusses this idea when she claimed that “the main goal of triage is sort the patients out, prioritize who needs to go back next – the ER is all about life and death.” Penny continues to state, “The person who you think may die first gets to go back first, and then it just goes down the line of priority.” Additionally, Arnie (semi-structured triage nurse participant) states, “The main goal of triage is to sort the sick and the not so sick.” Arnie continues to assert, “One should always make sure to anticipate the worst case scenario of whatever the presentation is of the patient.” Thus, “one should also be careful about identifying those that require real emergencies, like missing limbs or eyes, or missing testicles.”

Penny (22 years of triage experience) and Kia (17 years of triage experience) were the most experienced triage nurses of those that participated in the semi-structured



interviews. Both felt that experience was a primary function of what constitutes effective triage sensemaking. Interestingly, all the other participants universally agreed that the ability to “identify the sickest patients” sharpened with one’s level of experience.

Therefore, one’s proficiency in identifying the sickest patients was felt to be correlated with one’s level of experience. On two separate occasions, the two most experienced triage nurses that I interviewed (Penny and Kia) claimed that “due to the expansive and critical nature of the pivot desk role, our ED should not risk having less experienced nurses at the desk, particularly on busy nights.” As Ferrario (2003) asserted in the literature review, it was clear during my discussions and observations with the triage nurses at this ED, that the more experienced (greater than 5 years of experience) triage nurses detected a quantifiable difference between an experienced nurse and one less experienced (less than 5 years of experience), as Kia states, “when placed in critical positions such as the pivot desk.”

Upon deeper examination of the role that experience level plays regarding the 16 participants, the more experienced respondents relied more heavily on experience over acuity scales to navigate patient stories. As Georgia (10 years of triage experience) put it, “It is just a sixth sense.” Georgia continues to state, “99% of it is the “gut feeling” – good nurses are born, not raised.” An interesting arbitrary measurement that was ascertained during the research regarding the triage nurses that participated in the semi-structured interviews - the average years of experience of those triage nurses that relied more heavily on decision aids (acuity scales) was 9 years. Conversely, the average years of experience of those triage nurses that relied more heavily on their “gut feeling” or intuition was 9.5 years. Therefore, as surmised from previous data in this study, triage nurse level of experience

proved not to be significant in terms of how triage nurses negotiate the sensemaking continuum that leads to triage decision-making resulting in patient diagnosis. As cited in the literature review, level of experience does not necessarily lead to improved triage decision-making. However, what this research study does confirm from the perspective of the triage nurse that more experienced triage nurses were viewed as more effective in terms of efficiency.

**Use of objective tools.** The semi-structured interview data revealed that triage nurses use decision aids selectively to increase efficiency and increase the probability of a successful next step in patient care. Such decision aids can be useful tools in translating the patient's story into a series of clinically appropriate actions (Browning, 1992). Similarly, Gawande (2010) discusses how many professionals (i.e. surgeons, pilots, and nurses) who sometimes deal with incredibly difficult decisions utilize decision aids (i.e. checklists) to bring peace out of confusion. Gawande's work suggests "checklists" provide a mental map that helps the triage nurse navigate and translate the patient's story into a medical diagnosis.

My data reveals some of the ways in which triage nurses relied on subjective (gut feeling or experience) or objective (decision aids) means to interpret a patient's story and performance. For instance, fifteen of the 16 participants remarked on the critical role that experience or intuition ("gut feeling") played in efficiently and appropriately interpreting a patient's performance in triage. The almost universal observation regarding intuition is that it is often difficult to rely solely on the patients' narrative due to such barriers as health literacy, cultural differences, and story inconsistencies. Kia claimed that a patient entered the ED complaining of tooth pain, "but it just seemed like it was more than that."

Kia continued to state, “Yeah my gut just tripped my senses – I swear to God it’s like a spidey sense that makes the hair on the back of your neck just raise.” She claimed that due to the language barrier, “I know he said tooth pain, but I really think it is jaw pain” (a common symptom of cardiovascular events). The patient was indeed suffering jaw pain as a symptom of a myocardial infarction (MI).

One respondent (5 years of experience), however, that did not concur with the other 15 participants and felt that using one’s “gut feeling” as a primary interpretation tool led to potential generalization, which was deemed as possibly harmful to the patient in terms of determining the correct acuity level. Nonetheless, there were clearly more remarks supporting the idea that intuition played a significant role in ED triage performative interpretation or sensemaking.

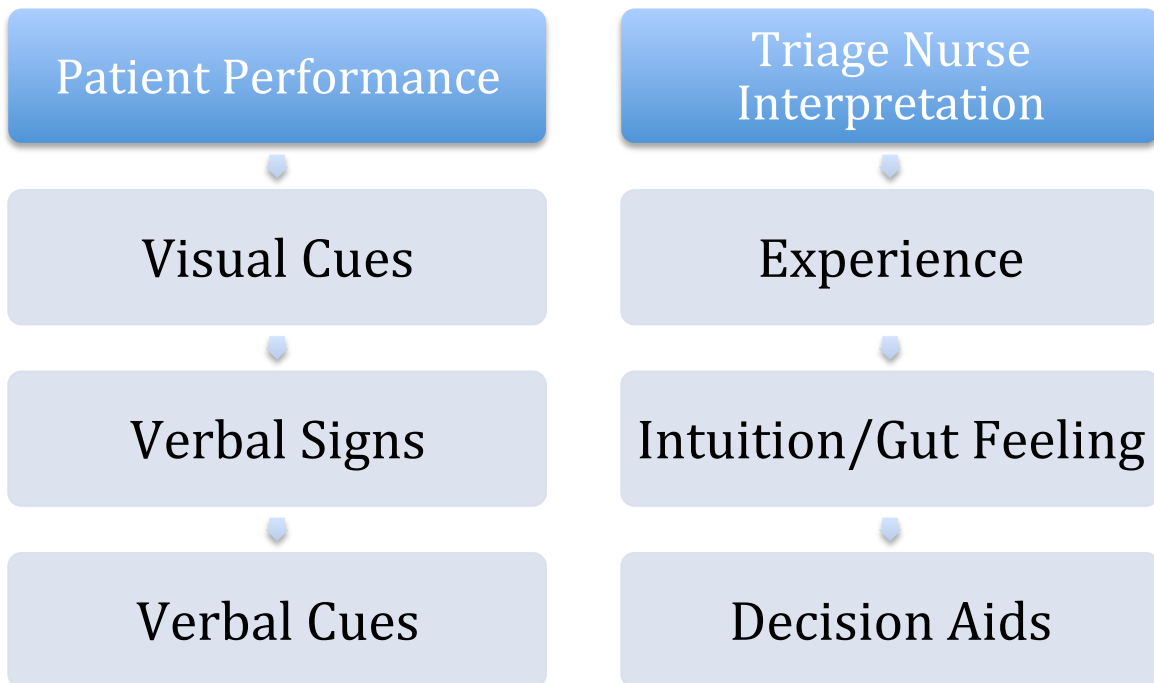
Conversely, although intuition was paramount to deciphering the performative nature of the triage process, this study revealed that the use of objective tools such as acuity scales (i.e. ESI) was a widely accepted as a way to validate one’s initial interpretation of a patient’s story. Specifically, during periods of uncertainty a triage nurses’ level of confidence or intuition may be supported by objective measures. For example, nine of the 16 triage nurses who participated in the semi-structured interviews commented on the usefulness of acuity scales in providing additional insight. None of these nine participants felt that the use of acuity scales could, however, replace the role of experience. This notion was supported by one of the triage nurse participants, Elizabeth, when she stated, “that even though an EKG (electrocardiogram) read may place a patient within a certain acuity level, if my “gut feeling” is telling me something else based on my experience, I am going with that.” Hence, EKGs or other objective tools (i.e., blood pressure readings, pulse

oximetry readings, diagnostic imaging) were generally viewed as legitimate tools to support hunches that stemmed from one's experience. Although six of the 16 participants mentioned utilizing objective tools as part of the triage process, they still felt that being able to see and touch the patient was important to understanding a patient's needs. For example, Rick, another participant claimed that "one's ability to watch a patient breathe, watch if a patient is guarded, watch if a patient is grunting, and watch if a patient is anxious" is critical to understanding the patient's story and making an accurate diagnosis.

Interestingly, there was a connection between a triage nurse's reliance on vital signs and level of experience. Novice triage nurses tended to rely more heavily on objective measures and other acuity scales and for determining appropriate triaging of patients, while more experienced triage nurses tended to focus less on the patient's vital signs and more on the physical presentation of the patient. More experienced triage nurses (greater than 5 years of experience) were more comfortable basing triage decisions on the patient's presentation, and mentioned rules of thumb such as "warm, pink, or dry," suggests patients with less acuity. Four of the 16 participants claimed that the patient's physical presentation was a primary way to make sense of the patient's narrative.

Furthermore, it was clear that the nurses relied largely on intuition or *gut reactions* to the patients that they were charged with treating. Gut reaction is defined in this study as an instinctive way of understanding what may be happening to the patient. This *inner sense* was reported by some nurses as stemming from previous experience. Some nurses called it an innate trait—a nurse either had or did not have it. Based on observations and semi-structured interviews, 'good or bad,' the use of personal bias was leveraged by the triage nurse to inform the decision-making process. Specifically, as Ferrario (2003) posited in the

literature review, the triage nurse may rely on decision aids to help support a previous judgment or cue from a past experience with a patient with a similar demographic makeup. Additionally, because the primary objective of the ED is to assess patients' clinical status, nurses also reported that they used an objective measure—vital signs—in order to determine patient acuity, often redirecting the voice of the patient. Nurses justified overriding the patient's story because as Harry stated, "vitals don't lie, patients do." Figure 3 provides a visual display of the factors involved in the ED nurse's sensemaking process (our earlier diagram – Figure 2, needed to be amended to account for the data that revealed the large role gut feeling/intuition and experience play in the triage process):



*Figure 3. Sensemaking Triage Process*

In all, intuition and experience are relied heavily upon during the triage nurse decision-making process. This study also proved depending on a triage RNs level of experience, cues from a patient's presentation, objective tools (e.g. vital signs and acuity scales) were often leveraged to form a diagnosis.

The majority of nurses that were observed during the patient observations and semi-structured interviews claimed that the use of objective tools (i.e. pulse oximetry, blood pressure readings) and subjective tools (i.e. intuition, "gut feeling") provided them the vehicle to translate a patient's story into an acceptable medical diagnosis. Furthermore, as the literature asserts, regardless of level of triage experience, some used "homegrown" idiosyncratic decision aids (which had been developed over years of experience), and others relied on forms of decision aids which have been more established and standardized (i.e. ESI).

**Importance of patient story.** Defining the relative importance of the patient story is no simple task. At the onset of this study I hypothesized that the patient story served as the most important tool in the toolbox that triage nurses utilize to make clinical judgments. However, what I learned regarding how the triage nurse utilizes the patient story to make informed clinical judgments was a surprise. Regardless of the experience level of the triage nurse, the triage nurse individually determines the weight or influence of the patient story, and most rely on it less than they do physical presentation (visual cues and vital signs). Additionally, based on my observations and interviews, the question of what is lost or gained when the triage nurse attempts to translate the patient's story into an actionable list is inconsequential through the eyes of the triage nurse - if the triage nurses objectives have been met. Specifically, as Jona (trriage nurse that was observed during patient

observations) says, "As long as the patient does not die, and I have provided good customer service, my job is done." That is not to say that the story is not important, but as Arnie claimed, "The story is relatively important, but what trumps the story, is what I see – how the patient presents when I see them." Therefore, this finding substantiates the idea that the patient's total performance rather than their story is what the triage nurse finds more compelling, and ultimately what the triage nurse leverages or acts upon in determining the patient's diagnosis/prognosis.

Arnie continued to say, "Sometimes the patient story can get in the way, and they often require constant redirection." These responses reinforce that the story has a role, but not the primary role in the triage sensemaking process - which in this case is determined not by the patient, but by the triage nurse. Thus, based on this study's findings, the primary vulnerability that might emerge in the translation of the patient's story occurs only if the triage professional doesn't appropriately utilize elements of the story to construct a consistent picture of the patient's condition and acuity.

Therefore, the reality of a patient story having multiple authors presented the arduous task of determining "whose story is it?" The results of this study suggest based on semi-structured interviews and observations, the story has no sole owner. For example, through silence, a patient is telling a story, and the triage professional interprets the meaning of both verbal and nonverbal communication. Therefore, when patient silence was observed during medical encounters, it was often interpreted or co-constructed to support the script of the triage professional's needs and not necessarily the patient's story. Thus, there is probably no sole owner, but 'owners' of the story. This idea potentially becomes problematic because it seems to imply and add credence to what Bartesaghi (2009)

espouses about the conversation and questioning that are forged between a therapist and client are designed or institutionalized to decrease elements of conversational spontaneity. Therefore, “therapeutic problems are not discovered, but formulated by the therapist and acquiesced by the client if the relationship between them is to continue” (p.155). As discussed in chapter 1 as it relates to hierarchy, this idea that Bartesaghi presents wrestles with the institutional and power relations that are constructed by the *influencer* in order for the *influenced* to follow the conversational or questioning script that is carried out by the *influencer*. Although what Bartesaghi is suggesting is situated in the mental health arena, this idea of limiting conversational spontaneity certainly emerges in ED triage work. Essentially, regardless of the patient’s story, the triage professional often constructs the patient story to fit a predetermined script, and thereby minimizes the voice or intent of the patient. However, it must be said, based on the time restraints and various other challenges faced in ED triage, the triage nurse may feel in order to promptly address the clinical needs of patients, co-opting the patient story may provide the only answer to the sole role of triage – treating the sickest patients first. Again, in light of the ongoing pressures (i.e. time, serious clinical outcomes) this is a necessary tension that must be performed by the triage nurse, and as Browning’s work on lists and stories suggest, the list provides the triage nurse the dialectical discipline necessary to navigate and interpret the patient story with the appropriate interpretive perspective.

In addition to understanding the function and performative aspects of triage, I realized that bias was playing a critical role in the triage sensemaking process. Thus, to my surprise, I was able to capture many of the effects related to bias even though in the “official” interview process no triage nurses admitted to biases.



**What effects did racism and other biases have on triage sensemaking?** First, before I discuss some of the factors that influence triage nurses' performances with patients through the prism of bias and stereotyping, it is important to mention (a) my healthcare background and (b) the demographic of race. In terms of my healthcare background, although I am not a medical practitioner (i.e. nurse or physician), my healthcare experience within the pharmaceutical (advising physicians on appropriate usage of pharmaceutical medications) and medical device (advising surgeons on appropriate usage of medical devices in surgery) industries over the past 15 years afforded me unique clinical insights regarding triage nurse decision-making.

Relating to the demographics of my race, I was the sole African American (male) researcher. As previously mentioned, my research assistants were two Caucasian females (one of whom spoke Spanish and Portuguese fluently) and a Caucasian male. The African American triage experience at this ED from both the triage nurse and patient perspective is probably not unlike how race is viewed in larger society—a very covert conversation. The dynamics of race played an interesting role in the research with regard to (a) my conversations with the African American triage staff (total of 6 participants), and (b) the perspectives of how certain African American patients were viewed. First, not surprisingly, sharing the same race with the African American triage nurse participants, may have led to my ability to establish rapport and trust with these triage nurses. Perhaps, this connection drove their willingness to discuss their perspectives regarding the effects of race at this ED facility during the semi-structured interviews.

This idea was substantiated earlier in the Methods section. This occurred when Gwendolyn's (semi-structured interview participant) assertion regarding the need for

further training for non-African American triage staff when treating Sickle Cell Anemia patients due to a lack of empathy. As an African American, I felt an immediate tension that I often found myself wrestling with throughout the study. This reality created a back and forth movement or shift that I later characterized as a sort of “role-shifting.” As Jorgenson asserts, “The ways in which interviewees make sense of and respond to the interviewer’s questions depends in large measure on how those being interviewed represent the interviewer” (Jorgenson, p.222, 1991). My sense was, that Gwendolyn thought that I represented part ‘confidant’ and part ‘researcher,’ hence the “role-shifting” that I experienced throughout the study. However, my ability to shift from ‘confidant’ to ‘researcher,’ provided me a unique perspective that had no inhibitory effect on the integrity of the data or research process. Arguably, compared to my non-African American co-researchers, and argument could be made that my ability to “role-shift” may have certainly provided the African American triage nurses a certain comfort level. Thus, enhancing the information that I was able to glean from them during the semi-structured interview segment of the study.

Second, the dynamics of race shaped how patients were viewed. In particular, some African American female patients were stereotyped as being “drama mamas” by many of the non-African American ED triage staff. The sense among this segment of the triage staff was that this subgroup often could be inflexible and unwilling to follow pertinent protocols. As Gwendolyn espoused, “Not every patient is easy, some patients no matter their race, make us work harder.” She continues to state, “But, the patient should always come first regardless of their race and difficulty triaging them.”

Thus, the role of bias and stereotyping pertaining to race in terms of the research question was not openly discussed. The impact of this research question was significant in my findings with four of the 6 African-American triage nurses that participated in the semi-structured interviews. Specifically, I detected no observable appearance of triage nurse bias or stereotyping during the patient observation portion of the study. However, the influence of bias and stereotyping was considered by these African American triage nurses to be ubiquitous.

One of those African American triage nurses, Georgia, claimed, “We are constantly excluded from the ‘elite group’ (non-African American triage nurses that received preferential treatment), and God forbid if we make a clinical mistake, we don’t get a second chance.” Interestingly, the second chance that Georgia was alluding to was the case of Elizabeth, who I later interviewed. Elizabeth told me that she had made a “commonly-made” (no harm to the patient) medication error, “that resulted in me being demoted and potentially fired.” Elizabeth continued, “If this was one of the ‘elite group’ folks they would have received just a slap on the wrist, and it would have been forgotten.”

As previously noted, the impact of race clearly played some significance in how participating triage nurses interpreted the social interaction associated with the performative nature of triage. For example, although never outwardly mentioned by the African American triage nurses, it was my sense based on observations that non-African American triage nurses seemed to have difficulty in classifying the pain symptoms of Sickle Cell Anemia patients. Generally, these patients are asked to approximate their pain through the use of the Visual Analog Scale (VAS), which is a subjective measurement instrument that attempts to measure a characteristic or attitude that is believed to range across a

continuum of values and cannot easily be directly measured (Crichton, 2001). This led to my impressions that these patients often experience longer wait times, misdiagnosis, and a lack of empathy due to a misunderstanding of the symptoms related to Sickle Cell Anemia.

As I delved deeper into the perspectives of many of the non-Hispanic and non-African American triage nurse participants relating to race, I discovered some of the following viewpoints: one of the 16 participants claimed that African American patients tend to be a “lot of drama to treat;” a second participant stated that Asian families “tend to be more subdued;” and a third participant stated that “Hispanic patients are the best to triage because they are entertaining.” Interestingly, four out of the 7 Caucasian triage nurses claimed that bias and stereotyping related to race might occur on a “rare occasion,” and is generally reported by a visitor or patient. In similar fashion, Hispanic patients were often stereotyped as being “hysterical,” due to what many of the participants suggested was a result of their poor medication compliance at this ED. Specifically, by the time these patients entered the ED, they were “very sick and in great pain.”

Certainly, throughout the study race was the ‘elephant in the room’ that was not only nebulous at times, but also a very clear marker that often defined the negotiation of the patient, the African American triage nurse, and the non African American triage nurse. However, bias played a significant role in the triage sensemaking process. By many triage nurse accounts, the elderly patient population was considered by many to be the most difficult to triage. Generally, these patients are not very dramatic, very subdued, and not hyperverbal about their symptomology so as one of the triage nurses claimed after a patient observation “they tend to get the least amount of attention.” Overall, however, the

patient population who created the most response in terms of bias and stereotyping was the “frequent flyer.”

Although not observed during observations, most of the 16 interviewed triage nurses conceded that bias and stereotyping was sometimes an unavoidable reality when triaging “frequent flyer” patients. These patients were generally noninsured homeless patients that frequent the ED for primary care needs or exhibit drug-seeking behavior. Therefore, these patients sometimes veil the aforementioned needs or behavior by complaining of clinical problems (i.e. chest pain, abdominal pain) that they know will allow them to be immediately seen at the ED.

For instance, if a “frequent flyer” patient is seeking a bed for the night, he/she may complain of symptoms suggesting a cardiovascular event, and because of the full work up that is required due to these symptoms, the patient might get a hospital bed for the night. Harry, one of the triage nurses that I interviewed, stated that “The concern of triage nurses when encountering this type of patient is to resist the natural desire to ignore the patient’s primary complaint because often even though these patients’ frequent the ED regularly with what is perceived as disguised intentions, one never knows when this patient’s complaint is real.” Harry continues to say, “We have had patients die because someone assumed something they shouldn’t have.” As Joyce (pivot nurse) explains, “nothing is black and white about triage and nothing is a 100% textbook.” Joyce continues to reinforce the idea that “this is what makes this job really difficult, and why everyone cannot do it at the same level.”

Invariably, the ED nurse is tasked with the responsibility of triaging the sickest patients, so when they encounter a “frequent flyer” patient they are often overcome by

emotions of prejudice, anger, and disdain. They believe if patients come to the ED for primary care needs, these patients are essentially clogging up the system and holding up beds. As Penny (semi-structured interview participant) commented, "Pretending to be sicker than you are should be a crime." However, most triage nurses at this ED admitted that one of the goals of triage is not to allow bias or stereotyping to alter one's ability to appropriately triage any patient because one never knows when they actually may be sick. This reality underscores the crucial role of experience when treating patients who frequently used the ED for medical care. Based on observations, most triage nurses claimed that these patients were the most difficult to triage. However, Kia mentioned (a more experienced triage nurses) that over a career, "more experienced means that one has had some huge pickups (identifying a very sick patient that was difficult to determine) and some huge misses." Essentially, I discovered it is the huge misses that drive you to never take any patient complaint lightly. Kia commented further "that having this brevity of experience generally reduces the risk of missing or taking a frequent flyer's complaints as nonchalantly as a less experienced nurse due to their experience level."

During much of the observations it was clear and undeniable that bias and stereotyping did not affect the sickest patients because these patients present into the ED with an unambiguous story and protocol (e.g. unconscious patients). Alternatively, the study shows when a patient's narrative is unclear, a nurse's personal biases are frequently used to fill in the ambiguities and gaps. Thus, bias likely was used as a tool to drive decision-making, particularly during instances where triage nurses had a difficult time establishing rapport with patients. The study revealed, however, in instances where triage nurses were able to foster better rapport with their patients during triage encounters they

were able to make better decisions. Conversely, for those triage nurses that do not establish rapport with their patients, patients were observed being less comfortable and shared less information during ED visit.

### **Collective Patterns and Variances**

There is an inherent connection between the two research questions and the effects related to bias. This connection of RQ1, RQ2, and the effects related to bias, is embedded in the *experience level* of the triage nurse participants. For example, after careful and extensive analysis of RQ2 (*How do triage nurses interpret patient performances?*), it can be determined through the semi-structured interviews and patient observations that experience proved to be the most commonly used tool in terms of triage nurses interpreting the performative nature of a patient's narrative. After a patient-triage nurse encounter, Harry remarked, "You have to talk to patients, but you have to know to touch them." Harry continued to suggest, "Most triage nurses don't have the experience to know to touch the patient in order to obtain a fuller sense of why they are in the ED." Although not related to touch, but experience, it was observed that ED administrators preferred to staff the pivot desk with more experienced triage nurses than less experienced nurses because less experienced nurses did not possess the "red flag" ability (identifying high risk patients) to keep the ED from being a "mess."

The issue of experience versus less experienced continued to be an overarching factor that was represented in the research questions during both the interview and observation portions of the study. I recollect particular instance during an observation where a 27 year-old woman was being triaged by a less experienced triage nurse (less than 5 years of triage experience). This 27 year-old female presented into the ED with a chief

compliant of lower back pain and intermittent vaginal bleeding. During the patient encounter, the triage nurse went through a myriad of questions generated from the computer screen, and others stemming from the patient's responses from those questions. However, at no point during the interview did the triage nurse ask the patient if she was pregnant. Regardless of a female patient's complaint, if they fell within child-bearing age, the triage nurse would ask them two very distinct questions regarding pregnancy: (a) "When was your last menstrual cycle?" and (b) "Are you pregnant? Unfortunately, in this case, this less experienced triage nurse asked neither.

Additionally, *experience level* revealed that more experienced nurses tended to rely more heavily and consistently on certain intuitive techniques to navigate the translation process of the patient story than the less experienced nurses. The patient observations revealed that the less experienced nurses relied more heavily on acuity scales (ESI) compared to more experienced nurses relied on mnemonics such as "warm, pink, or dry," and or "spidey sense" that were employed more subconsciously versus the less experienced nurses having to look at the back of their name badge to review the ESI scale.

As discussed in the literature review, the common denominator that determines how triage nurses make sense or deconstruct the nuisances of a patient's performance depends on one's experience level. The less experienced rely more heavily on decision aids (i.e. ESI) and the more experienced rely more heavily on a "gut feeling." These differences highlight the significance that experience levels play in triage nurses' translation of a patient's performance or story into actionable lists.

Furthermore, as asserted by the example that was used earlier in this section *Collective Patterns* (less experienced nurse not asking about pregnancy), it is reasonable to



conclude that effects of poor rapport may share some correlation to patient recidivism rates. Interestingly, the idea of metrics such as readmission rates related to returning patients that enter the ED with the same complaints that facilitated their previous visit(s), is something that this ED does track, but does not utilize to improve workflow. This sort of scrutiny could provide the type of analysis needed to better understand how a lack of rapport impacts patient recidivism rates. For example, outcome-based public health research suggests, regardless of the healthcare setting, disenfranchised group (i.e. African American, Hispanic, and Elderly patients), tend to have a more difficult time navigating any healthcare environment. Therefore, the impact of improved rapport within the ED environment deserves further research investigation in terms of patient recidivism rates.

## **Chapter 4**

### **Discussion**

The communicative exchange that is shared between patients and triage professionals is complex, and the stakes are high. The goal of this project was to begin to clarify how triage professionals see their role in the ED and the strategies they use to translate patient performances and stories into actionable lists of clinical tasks. In this final chapter I focus my attention on providing a landing spot to discuss the complexities revealed by this study about the communicative exchanges shared by patients and triage nurses. To accomplish this end, I briefly summarize the project's goals and research questions, discuss the implications of the study's findings, and the usefulness of the theoretical perspectives employed, identify limitations, and suggest next steps that provide a course of action for research and practice.

#### **Project Summary**

Niska, Bhuiya, and Xu (2010) reported that there were about 222 visits to U.S. EDs every minute during 2007. The visit rate for homeless persons was almost twice that of those living in private residences, and uninsured patients, defined as self-pay and no charge or charity, where no other payment source was reported, represented 15.3 percent of visits. The leading reasons given by older patients (aged 65 years or over) for visiting the ED were chest pain, shortness of breath, and abdominal pain: these are generally persons with Medicare coverage whose primary care or specialist physician sent them to the ED on nights and weekends. It is factors such as these that make the ED an unbounded and

unpredictable environment filled with plot twists at every communicative intersection. For example, a patient enters the ED with their spouse complaining of classic symptoms associated with gallstones (i.e. jaundice, fever, right lower quadrant pain). Upon the triage nurse completing a History/Physical (H&P), the triage nurse obtains a preliminary diagnosis of gallbladder disease (i.e. gallstones). Just as the patient and spouse are about to be consulted by a general surgeon, the spouse blurts out, “You know what,” “He did have a cholecystectomy (laparoscopic gallbladder removal surgery) several years ago.” Due to this new information, the “plot” in the mind of the triage nurse now had to be almost completely revised because of this new and crucial information. As a result of the unpredictable nature of the ED, triage nurses are often confronted by unbelievable pressures that can often impede their ability to accomplish the primary goal of triage – treat the sickest patients first.

Treating the sickest patients first allows triage professionals to better ensure patient safety and well-being. In order to accomplish this goal, triage professionals rely on certain systems (i.e. decision aids, “gut feeling,” experience) to make decisions about the patient in front of them, who brings his or her story, a set of vital signs, and a physical presentation. The research literature continues to be mixed in terms of how exactly triage professionals engage in clinical decision-making. For example, where does the “gut feeling” come from? Does it stem solely from experience? Or is it simply an unexplained gift? How and in what circumstances do triage nurses rely on decision aids to effectively triage patients? Decision aids provide a highly structured system that mitigates user misinterpretation and provides a metric of measurability and transparency for EDs to

ensure standardization and consistency in the triage process. Some studies have shown, however, that many experienced triage nurses do not routinely use them (Ferrario, 2003).

If the triage process can be better understood, training for triage nurses can be improved. To better understand the triage process, the primary objective of this dissertation was to provide greater insight into many of the communicative complexities that continue to characterize the ED triage environment. The following two research questions were explored: RQ1: What do triage nurses perceive as the primary goal of triage? RQ2: How do triage nurses interpret patient performances?

Utilizing the theoretical frameworks of Goffman's dramaturgy and Browning's lists and stories to guide the study provided a useful framework to better understand the ways in which triage nurses interpret and act on patient stories in an ED environment. Specifically, Goffman's dramaturgy helped unveil many of the scripted interactions that occurred between triage nurses in the front stage and back stage areas of the ED that were often unnoticed by patients, and even by certain triage staff. Browning's lists and stories brought an improved focus as to how triage professionals translate patient stories into lists that direct clinical actions. Essentially, Browning's work helped provide a lens to differentiate the various ways experience impacts a triage nurses' decision-making process. This was critically important in deciphering how patient stories are co-constructed by patients and triage professionals, and how they rely on scripts (i.e. checklists) to help inform the process of translating patient stories into actionable lists.

### **Study Findings and Implications**

In this section I summarize the study findings and discuss their implications. First, RQ1 (*What do triage nurses perceive as the primary goal of triage?*) reveals that the 16

triage nurse interview participants all agreed that the primary goal of triage is to identify the sickest patients. In addition to determining patient acuity, other goals included educating patients, efficiency; maintaining superior Press Ganey scores; and providing excellent customer service. While determining patient acuity was the most important goal, efficiency in terms of decreasing patient wait times is a close second.

Due to the ongoing tensions between the triage nurses' goals and administrative expectations relating to maintaining high Press Ganey scores (these are the patient satisfaction surveys that impact hospital reimbursements), efficiency was perceived by the administrative staff at this ED triage facility to be the key indicator of effective triage care. Hence, a balancing act ensues regarding the triage nurse's ability to diagnosis a patient's acuity level correctly, and still be efficient in terms of decreasing patient wait times.

Although I concluded that identifying the sickest patients and treating them efficiently is the primary goal of triage nursing, there are many factors such as Press Ganey Scores that can complicate the triage process. For example, during this research project, it was clear that many of the triage nurses were preoccupied with the acknowledged (by triage nurses) administrative pressures associated with Press Ganey Scores due to the impact on hospital reimbursements. Moreover, many of the triage nurses often felt that being efficient meant rushing with patients to ensure their triage experience moved along quickly. Certainly, I am not suggesting that ED triage facilities should not highlight the importance of efficiency, but what is potentially missed in terms of quality of care when the ED triage focus is to herd patients quickly through the corridors of the ED?

This issue was something that Ross et al., (2009) took on when they suggested "if patients are efficiently managed yet prematurely discharged, only to return and be

admitted, then the efficiency benefit is less meaningful” (p.34). Under the provisions of the Patient Protection and Affordable Care Act (ACA), repeat hospitalizations within a particular timeframe are not likely to be reimbursed at current levels of funding, and might also incur penalties. Hospitals and doctors will have further incentives to avoid them if at all possible. As discussed in Chapter 3, the idea of measuring things such as recidivism rates related to returning patients that enter the ED with the same complaints that led to their previous visit(s), is something this ED did measure, but not for the purpose of improving workflow. Historically, it has been reported that 3.4% of ED patients return to the ED within 72 hours of their initial or index visit, with 92% of visits being related to the initial visit and 32% being classified as “avoidable” for a variety of reasons (Ross, Hemphill, Abramson, Schwab, Clark, p.34-35, 2009). With increased healthcare scrutiny surrounding improving patient outcomes, it seems the perfect time for EDs to begin to reevaluate the true meaning of ED efficiency. A reasonable starting point would be developing a more nuanced understanding of the various ways experienced triage nurses translate patient stories into actionable lists compared to less experienced triage nurses. Simply, does the delta between the varying ways these two types of triage nurses approach the decision-making process provide a quantifiable difference in terms of patient outcomes? Also, how can the lessons “experience” provides be taught more efficiently to new nurses?

In light of the ratification of the ACA, healthcare legislation has made a significant stride toward a more outcome/preventive healthcare based model. Essentially, the 2010 ACA promotes the importance of (a) individuals obtaining improved access to clinical preventive services; (b) promotes wellness in the workplace, providing new health promotion opportunities for employers and employees; (c) the act strengthens the

relationships between government and communities by government assisting communities with health promotion initiatives; and (d) the act elevates healthcare prevention as a national priority through various national health promotions (Koh and Sebelius, p.1296-1297, 2010). These factors may significantly impact ED efficiencies (patient wait times) by directly decreasing the ED census levels of uninsured populations and those patients that consistently rely on the ED for primary care needs. This assumes that the 30 million or so patients newly insured after the adoption of the Patient Protection and ACA will be able to have their health care needs met by primary care physicians in community settings. The ACA does not include provisions to increase the number of students admitted to medical schools, nor does it include incentives to encourage new doctors to choose primary care; currently only about 25% of new medical school graduates choose to practice in internal medicine, family medicine, or pediatrics (Schoen et al, 2010).

As discussed in Chapter 1, EDs are bursting at the seams as they deal with overcrowding and long patient wait times. In its current form, ACA may provide a viable solution in terms of addressing the overcrowding issue facing EDs by expanding health insurance coverage to about 30 million people – reducing the number of uninsured by more than half (Buettgens and Hall, 2011), and potentially mitigating the burgeoning pressures associated with treating these patients in the ER versus in a primary care setting. With approximately 30% (Tang et al., 2010) of uninsured patients accounting for all ED visits, ACA incentivizes patients, communities, corporations, and physicians (i.e. primary care) to engage in a more preventive healthcare approach. This, I believe, can be leveraged as a legitimate approach to reduce patient bottlenecks in EDs, and thereby, improve patient outcomes and recidivism rates. However, although Press Ganey Scores provide a good way for EDs to

measure patient satisfaction, and increase their reimbursement levels, arguably, we should consider not using these scores as the sole way to measure triage nurse effectiveness. Instead, it may be worthwhile to adopt a model that recognizes the positive aspects of Press Ganey Scores, but also takes patient recidivism rates into account when measuring the efficacy of triage efficiency and patient outcomes. This idea is important because Engel et al (2012) suggest that 92% of patients that are discharged from today's ERs display some level of deficit with their understanding of their discharge plans. Therefore, potentially contributing to increased ER recidivism rates and poor patient outcomes.

Second, RQ2 (*How do triage nurses interpret patient performances?*) study data allowed us to diagram characteristics of the patient's performance (Fig. 1) initially, and then revise this diagram to also include the variables that influence the triage nurse's interpretation (Fig. 3). Our data also sheds light on some of the differences in interpretation of patients' stories by level of triage nurse experience. The findings in the study showed that the more experienced (at least 5 years of ED experience) triage nurses tended not to rely as heavily on acuity scales and other decision aids and placed more emphasis on visual cues (i.e. warm, pink, or dry). Less experienced triage nurses (less than 5 years of experience) tended to rely more heavily on acuity scales. To our surprise, in neither case was the patient's story the most important source of information. This idea clearly came into focus as result of Browning's work on lists and stories. Specifically, by understanding the static and interpretive nature of the list, enabled me to understand how triage nurses arrive at many of the predictable outcomes they establish during the diagnosis/prognosis portion of the patient interview. Additionally, the triage nurse used the list as a template that allowed them to key in on visual cues (i.e. eye-contact, sweating)



which over a period of time during the patient observation portion of the study, it became easier for us to figure out which patient indicators lead the triage nurse to determine when the patient story no longer mattered.

For example, there was a fast food restaurant located inside of the hospital reasonably close to the ED. Often, due to the logistical convenience of this fast food restaurant, I would notice new (just entering ED) and existing triage patients (waiting in the lobby) going back and forth to this fast food establishment. In some instances where these patients presented into the ED with “stories” of severe abdominal pain, I observed many of the triage nurses appearing perplexed by the idea that a patient experiencing severe abdominal pain would find relief in a hamburger, fries, and Coke. Essentially, these triage nurses were questioning the notion of how could a patient find relief in junk food if they were genuinely experiencing excruciating abdominal pain? Ultimately, in these instances it was clear, the patient’s story generally would lose efficacy, which led the triage nurse to certainly question the integrity of the patient’s story, and therefore, not pay much credence to aspects of the patient’s story associated with abdominal pain.

If we are to better understand the interpretive process involving patient performances and stories, this dissertation provides three prevailing insights that aid in the translation of Browning’s stories-to-list concept. First, regardless of experience level, triage nurses rely on visual cues, which are confirmed by vital sign measurements rather than the patient’s verbal story. Second, the patient’s verbal description of their symptoms is useful mostly when the visual and vital signs are contradictory. Third, the patient’s “story” is more accurately conveyed to triage RNs through nonverbal cues such as the patient’s appearance and the attributions (i.e. race, class, ethnicity) nurses rely on for

clinical decision-making. Ultimately, these findings leave open the question of whether there is a difference in the way more experienced nurses' triage versus novice triage nurses. According to Cioffi (1998), three differences exist between experienced and less experienced nurses: (a) in the overall decision-making process, less experienced nurses collected more data during triage assessments; (b) more "gut feeling" judgments were made during the decision-making process by the more experienced nurses than by the less experienced; and (c) experienced nurses exhibited more focused data acquisition techniques and collected less extraneous information (Cioffi, 1998).

It is clear based on the findings of this dissertation that experience, "gut feeling," and decision aids are all quite useful, but experience and "gut feeling" cannot easily be taught. Instead, we need to begin to develop ways for triage nurses to interpret visual impressions and how to identify key words and phrases in the patient story. Essentially, the ability for triage nurses to resolve conflicting assessments could form a useful curriculum for triage nurses continuing professional development. Based on the comments of our triage nurse participants, both experienced triage nurses and novice triage nurses felt that they would benefit from continuing professional education (CPE), although the ED nursing administrators at the study site were somewhat apprehensive about developing an ongoing course for nurses to share lessons with each other in real time. The contention was that it would serve as an "imposition" and, that the current approach of initial training plus on-the-job training was sufficient. The idea of allowing the "gut feeling" to serve as the most influential factor in terms of translating patient stories into actionable lists from the perspective of seasoned triage administrators is fairly risky.

Consider a similar example from another high-risk occupation. Lots of research has been done within the airline industry regarding inflight cockpit decision-making and the use of checklists. For instance, Gordon, Mendenhall, and O'Connor (2012) introduce a concept referred to as Crew Resource Management (CRM), which is a system of job training and information sharing. This platform may have some utility in healthcare, since it creates an environment where lives could be saved and patient care improved by utilizing relevant lessons associated with teamwork and aviation safety. Specific to triage, it would be unreasonable for the airline industry to decide that checklists and other mechanisms to improve passenger safety would be set aside in favor of just letting pilots rely on their "gut feeling" while making critical inflight decisions. Similarly, patient outcomes might be improved by adopting a more standardized universal (i.e. checklists) way of clinical triage decision-making (Gawande, 2010). Obviously, this issue requires further investigation in EDs, because not unlike the airline industry, standardization of the triage decision-making process promoted through CPE, could increase the possibility for reducibility, reflexivity, and most important, patient safety and well-being.

### **Bias and Social Stereotyping**

Several circumstances allowed the research team to explore the impact of bias and social stereotyping on triage decisions. For example, the race of the author (African American) created a back stage interview space where many of the African American nurses found refuge to discuss many of their career challenges associated with race. Clearly, my race invoked a back stage style that many of the African American nurses felt inviting. Thus, these nurses would symbolically section off the interview room or sitting area from the 'front' region during interviews to establish a back region. Similarly, this is

not unlike the behavior that is exhibited by flight attendants during airline flights. Often, once all duties are performed, attendants are often seen in the back of the plane with their shoes off engaging in chatter not necessarily appropriate or professional from the perspective of the passenger (Goffman, 1959). Here too, flight attendants symbolically section off the front region of the plane to create a back region.

To capture many of the additional factors associated with bias and social stereotyping the question (*What effects did racism and other biases have on triage sensemaking?*) provided an opportunity to view firsthand the potential effects bias and social stereotyping had on racially diverse populations. Although patient demographic data were not recorded during the patient portion of the study, the patient population at this Southeastern Hospital that frequented the ED was diverse in terms of race and ethnicity. Specifically, for a point of reference, in the city where this Southeastern Hospital is located the racial demographics are as follows: (1) Caucasian 62.9% (2) African American 26.2% and (3) Hispanic 23.1% (U.S. Census Records, 2010). Furthermore, a disproportionate number of minority patients utilize the ED as an entry point into the healthcare system (i.e., primary care needs), which makes the ED an ideal venue to study the influence of race and ethnicity on the triage sensemaking process (Padela and Punekar, 2008). Though this study did not involve observing patients throughout their entire hospital stay, by the verbal accounts of four of the 6 African American triage nurses, there were notable differences in the ways African American patients were treated. Specifically, Sickle Cell Anemia patients, as well as elderly African American patients, were considered difficult patients to treat, particularly for non-African American triage professionals. As Steele and Aronson (1995) posit, this Southeastern Hospital is not unlike any other

institution or organization, bias and stereotyping is reflective of larger society regardless of setting.

The front stage area of the ED triage area displayed no outward signs of patient disenfranchisement in terms of quality of care due to race or ethnicity. None of the six African American triage nurses made any negative remarks regarding treatment of African American patients. However, when interviewed many of the African American triage nurses were despondent and in some cases offended by the effects of what they identified as “institutional racism.” Therefore, and possibly due to my race (African American) during the semi-structured interviews, many of the African American triage nurses saw this as an opportunity to divulge workplace challenges relating to race and bias.

As alluded to in Chapter 3, although this dissertation was not designed to map the various institutional spaces and power forces that construct this ED in terms of race, but interestingly enough, not unlike any back stage environment, this study did provide an opportunity for four of the six African American triage nurses to express their views regarding race without repercussions. On one occasion, Marissa (African American female triage nurse) claimed, “We have high-ranking African Americans in every part of the hospital except for the ED.” During a conversation with Tracy (African American female triage nurse), she claimed, “The existence of poor racial sensitivity doesn’t only impact the way they treat us, but also how patients are viewed and treated.” What Tracy was alluding to was a recent triage case involving an African American patient who was full-term and who was discharged prematurely, and later rushed back to the ED due to complaints of “dizziness and bleeding.” Once the patient returned to the ED with what the charge nurse called her “entourage” (boyfriend, mother, grandmother, aunt, and female cousin), Tracy

claimed, “Both me and Georgia were called into the room immediately because this 23 year-old girl was dying.” Tracy acknowledged that the charge nurse told her, “We need you guys to deal with the drama, if things get out-of-hand” (charge nurse referring to the negative drama possibly associated with patient’s entourage). The responses of the charge nurse is not surprising due to “extensive evidence that when humans mentally categorize individuals as belonging to a particular class or group, the characteristics assigned to that group are unconsciously and automatically applied to the individual” (Burgess, Fu, and van Ryn, p.1155, 2004).

This study reinforced the idea of the unavoidable nature of stereotyping and bias, as they are “almost universal human cognitive functions,” and “stereotypes, conscious or not, endorse or guide the perception, interpretation and retrieval of information” (Heron, Stettner, and Haley, p.6, 2006). Thus, it is important to realize that no matter if triage nurses agree on process and receive additional training, their personalities, stereotypes, biases (some of which are the result of this same experience) may or may not adversely impact their judgment. For example, when Joyce (Caucasian female triage nurse) was asked if patient demographics influence her decision-making, she initially stated, “No.” However, upon further introspection, she admitted, “If a young African American male comes into the ED with a wicked headache, and never seen a doctor before, I am going to initially assume that the patient is having a hypertensive episode.” Therefore, as espoused by Heron et al, in this case bias and stereotyping played a critical role in Joyce’s retrieval process pertaining to hypertension, and how it disproportionately impacts African Americans. Thus, in this case, the use of bias and stereotyping could arguably be seen as a

beneficial tool to help uncover common symptomatology related to headaches in African American patients with hypertension.

Chia (2000) suggested that triage professionals often employ bias and stereotyping to make sense of patient stories to aid in clinical decision-making. However, even though bias and stereotyping can be seen as a good shortcut in terms of patient categorization in terms of decision-making, Arslanian-Engoren (2000) caution us about the potential downside. The downside to patient categorization has been chronicled extensively throughout public health literature relating to issues such as poor patient outcomes and health disparities. In large part, the triage encounter should be a race-neutral environment where patients are viewed as unique individuals rather than members of a particular class or group - even though the use of bias and stereotyping can often be useful with clinical decision-making.

Importantly, bias and stereotyping not only influence the patient and triage nurse, but also the researcher. Incidentally, from the African American triage nurse perspective as characterized in Chapter 3, the effects of bias and stereotyping stemming from their non-African American triage nurse peers often lead to feelings of exclusion and institutional disenfranchisement. Therefore, not surprising, it appears that my race (African American) made it safer for the African American nurses to share their perceptions of racism in the ED, and as Jorgenson (1991) asserts, participants make judgments about the person conducting the interview, which influences the ways in which interview questions are answered. Additionally, in terms of the researcher, he/she must negotiate a sense of mutual understanding that encourages an atmosphere that is nonjudgmental, embodies trust, and most of all, actively promotes the acceptance of individuality. Moreover, as

suggested by Heron et al., there will always be without exception a limit to what one can ascertain from research subjects due to difference. As Jorgenson (1991) asserted, researchers and research subjects alike cannot divorce themselves from who they are because this variation should not be considered a source of error, but a source of research opportunity that should be used to enlighten the interpretive senses of the researcher and the research subject.

### **Utility of Theoretical Frameworks**

This dissertation revealed that this interpretive challenge is captured through an idiosyncratic stream of communication that underscores the highly individualistic way triage nurses translate patient stories into actionable lists. As Eisenberg et al. (2006) espoused, this stream of communication that highlights the triage process is guarded, inflexible, and closed, versus being rich and dynamic, as EDs are generally perceived to be. As a result of this study defining these challenges, this dissertation acknowledges the scarcity of triage sensemaking literature, but attempts to diminish this gap by examining qualitatively how ER nurses interpret patient performance and stories into actionable lists.

First, by adopting Goffman's dramaturgy as organizational communication is supportive of the theoretical assertion that all organizations, including EDs, are composed of dramaturgical performances that relate to medical encounters and underscore the essence of triage communicative process. This idea highlights the crux of the communicative exchange shared between the patient and the triage nurse. Ultimately, each patient and triage nurse enters the ED with a set purpose—the patient delivers a performance framed in a story, and the triage nurse converts that story to a list. Triage RNs



are performing for themselves, for patients, for peers, and for administrators who all have different clinical/customer service expectations often in the front stage.

Second, as the triage nurse converts the patient's story into a list, is where Browning's lists and stories provides a useful lens to help uncover this translation process. For instance, as previously stated, the primary goal of the triage nurse is to determine if the patient is sick or not. Browning's lists and stories provides us the deciphering tools to examine how narrative rationality (the patient's story) and technical rationality (clinical decision-making) influence actions and provide hidden pockets of knowledge that allow triage nurses to function with a heightened sense of efficiency. For example, let's consider a patient presents into the ED with chest pain. Although the patient enters the ED with a story associated with 'why' they have chest pain – Browning's lists and stories enables us to understand that even though from the triage nurses perspective the story has some relevance, the triage nurse is primarily focused on listening/looking for certain cues that help fill in or assemble their template to make the appropriate diagnosis/prognosis.

Regardless of how useful the two theoretical frameworks proved to be such as Goffman's dramaturgy providing us a spotlight to observe many of the African-American triage nurses utilizing the semi-structured interviews as a place of refuge to "let their hair down" – back stage. The process of how triage professionals translate patient stories into actionable lists continues to be mysterious. "Does the patient story even matter?" Arguably, the answer to this question is debatable. Browning suggests that the story has no sole owner, but owners. Essentially, the patient story matters if it works for the triage nurse. In other words, can the triage nurse puzzle the patient story together to form the clinical picture they need to make a diagnosis/prognosis? This certainly reinforces the idea

that the triage nurse is the one who determines what role, if any, the patient's story plays in their overall treatment. One of the triage nurse participants stated, "You must give credence to the story; the story represents a person, but the story is not the end all or be all."

## **Limitations**

Through the utilization of semi-structured interviews and patient observations the design of this study afforded a unique lens to better grasp the intricacies of the triage decision-making process. The study produced many research findings that were consistent with much of the ED nursing triage literature such as more experienced triage nurses rely less on objective tools (acuity scales) and more on intuition. The translation process of how triage nurses make sense of patient stories still remains murky and subjective, and bias and stereotyping are not absent from triage decision-making, and often warranted to facilitate the decision-making process. However, two distinct limitations became apparent during the study that could later fuel future research opportunities.

First, even though we tried to observe all the working shifts of the triage nurses represented at the research facility, if the study was part of a multi-centered study approach, versus one hospital, we possibly would have had a more robust universal understanding of many of the communicative intricacies reminiscent of the triage encounter. However, at the onset of this qualitative study, the primary goal was to examine and obtain a clearer more succinct understanding of the ED triage nurse sensemaking process.

Second, by the study not being designed to follow patients throughout the entire triage process, the framework of this study did not allow the opportunity to make

conclusive assumptions regarding how the “evolution of the patient’s story,” was impacted by a myriad of patient outcome-based factors (i.e. recidivism rates, role of consultants). Thus, future ED research should seek to explore for example, (a) if poor recidivism rates occur as a result of the triage patient’s secondary and tertiary complaints not being recognized by the triage professional during the index triage encounter, (b) further understanding is required to determine how the patient’s story evolves through the voices of other’s such as triage consultants (i.e. surgical specialists) as the triage patient is propelled through the various spaces that makeup the ED, and (c) as discussed by Behara et al., (2009) we need to gain a deeper understanding of the impact that nursing transitions or handovers have on the continuity of ED triage patient care.

Despite these limitations, this study does provide a pathway that can possibly inform future communication theory. Additional research opportunities might focus on untangling the communicative idiosyncrasies that are reminiscent of the triage encounter.

### **Next Steps: Recommendations for Future Research**

The focus of this dissertation was to explore the performative process shared between patients and triage professionals and how triage nurses translate patient stories into actionable lists. This topic was chosen due to the scarcity of ED nursing literature examining the intricacies of the sensemaking process that underscores triage nurse decision-making. Furthermore, for the purpose of supporting the framework of today’s EDs (efficiency), as was discovered in this dissertation, the patient’s story must be interpreted by the triage nurse along with vital signs and visual cues in order to appropriately triage and treat the patient.

During the research as well as the analysis portion of this study, it was clear that several gaps existed beyond the realm of the research questions worthy of investigation. Such as (a) developing a more succinct measurable understanding of how experienced and less experienced triage nurses translate patients stories differently into actionable lists; (b) leveraging a multi-centered study approach to provide researchers with a broader understanding of how marginalized populations are perceived and treated in the ED; and (c) grasping a more cumulative understanding of how the “evolution of the patient story” (following the patient from triage admission to discharge) informs patient care, but also shapes the clinical decision-making process of triage professionals. Therefore, with these suggestions in-hand, and the conclusions stemming from this dissertation, where should researchers committed to this area of research go from here? The answer, I believe, lies in pursuing future research that centers around (a) utilizing discourse analysis rather than researchers synthesizing communicative themes that underscore triage encounters to better analyze the things that are said during triage encounters (the idea is that when a patient tells a story, a triage nurse doesn’t typically listen to the richness and details, at least Browning’s theory of lists and stories would suggest otherwise. One hypothesis for future research, based on Browning, is that certain “key words” emerge in the patient’s story that do direct the triage nurse’s decisions, and that discourse analysis might be a method that would reveal what these are and how they work in sense-making) and (b) a team approach (multidisciplinary) would provide a fuller understanding of all aspects ED that impact triage.

First, understanding how discourse analysis may unveil the language game of the triage process at a micro level would (a) highlight the need for more discussion centered

around the content versus the structural aspects of patient/triage professional interaction; (b) by utilizing microanalysis we can deepen our understanding of all the utterances (i.e. pitch, interruptions, tone) that makeup the triage encounter; and (c) by the constructive analysis of the content rather than the structural aspects of the triage encounter, we may learn more about the decision-making process associated with triage encounters and potentially improve triage efficiencies.

Second, as it relates to the formation of multidisciplinary team (including a communication scholar), by assembling trained professionals (i.e. attorneys, engineers, nurses, physicians, anthropologists) formed to study ED triage decision-making would be formidable based on my experience with this project such as having team members with clinical backgrounds (i.e. physicians and nurses) would help broaden our understanding of medical nomenclature and various clinical processes. Specifically, for example, without the collaboration of an industrial engineer who was hired by the ED, my understanding of the structural insufficiencies (i.e. ED structural design) impeding the performance (i.e. efficiency) of this ED would have not been as clear. Due to the complexity of the ED environment characterized by intense time pressures, often insurmountable workloads, and sometimes poorly structured patient complaints, the industrial engineer proposed a more linear/process-driven approach to understanding many of the communicative challenges faced by patients and triage professionals. Conversely, my communication background provided us the appropriate context to disseminate these structural insufficiencies through a communicative lens which unlike the industrial engineer's methodology of studying triage inefficiencies through a more linear approach, my approach, enabled me to unpack many of communicative aspects of triage that illuminate

the triage sensemaking process. From a discourse analysis perspective, this aspect of the collaboration was essential in decoding and amplifying the voices of both patients and triage nurses.

To be clear, this assessment and suggestion underscores the unique contribution that a multidisciplinary approach can afford researchers by providing a platform that embraces a melting pot of ideas and solutions to complex problems. Essentially, the research relationship that I forged with this industrial engineer afforded each of us a clearer understanding of how both communication and engineering impacted the sensemaking process of triage nurses. Thus, how might this formula, a multidisciplinary approach, help inform researchers about lingering issues that not only presented in this dissertation, but continue to baffle ED triage researchers? Central to this issue is the question: “How do triage nurses translate patient stories into actionable lists?”

Even though this dissertation contributes to our understanding of the triage sensemaking process, we still do not know enough. It is my contention, by assembling a multidisciplinary team of researchers we might be able to better unravel many of the riddles associated with triage decision-making.

This study informs us that triage professionals embark everyday on an overwhelmingly challenging and important journey to better understand and treat needs of patients through triage decision-making. Importantly, “despite the fact that patients and their families may be asked to repeat their story multiple times, the overall pressure in the ED is toward technical rationality and efficiency” (Eisenberg et al., p.410, 2005). Thus, the question becomes does the patient’s story actually matter? The answer to this question is something that I wrestled with throughout this entire study. However, as Eisenberg et al.,

suggest, the story matters to triage professionals if the patient has “a good story,” but if the patient’s story is “a complicated story,” the patient story is often perceived by triage professionals as unreliable or a non-factor. Essentially, with the research conducted to date, it looks like the patient’s story matters more in handoffs, where faithful transmission of the patient’s narrative between shifts may reduce adverse events, but in triage, the patient’s story appears to be less important in directing clinical decisions than visual observations, vital signs, and the triage nurse’s past experience and gut feelings.

Based on the findings of this study, ED research must begin to decode the communicative blind spots associated with triage nurse decision-making. Ultimately though, as health communication scholars we hold an important key to unveiling what continues to inhibit our understanding of the nuisances of triage decision-making, and also the inefficiencies of the triage process. It is this key that will aid health communication scholars committed to translational research a heightened understanding of the communicative exchanges that underscore the triage encounter, but also provide necessary communicative insights to improve triage efficiencies, sharpen our understanding of the triage decision-making process, and arguably most important, improve patient outcomes.

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## **Appendices**

## Appendix A

### Characteristics of Participants

Name	Role in Study	Experience Level (years)	Credential	Sex	Race
Roberta (charge nurse)	Patient Observations	-	RN	Female	Caucasian
Jennifer (charge nurse)	Semi-structured Interviews	8	RN	Female	Caucasian
Franklin	Semi-structured Interviews	6	LPN	Male	Hispanic
Mike	Semi-structured Interviews	10	RN	Male	Caucasian
Suzy	Semi-structured Interviews	15	RN	Female	Caucasian
Marissa	Semi-structured Interviews	2	RN	Female	African American
Elizabeth	Semi-structured Interviews	2	RN	Female	African American
Rick	Semi-structured Interviews	5	RN	Male	African American
Georgia	Semi-structured Interviews	15	RN	Female	African American
Gwendolyn	Semi-structured Interviews	10	RN	Female	African American
Tracy	Semi-structured Interviews	12	RN	Female	African American
Harry	Semi-structured Interviews	11	RN	Male	Hispanic
Joyce	Semi-structured Interviews	9	RN	Female	Hispanic
Arnie	Semi-structured Interviews	11	RN	Male	Caucasian
Penny	Semi-structured Interviews	22	RN	Female	Caucasian
Kia	Semi-structured Interviews (completed by Meagan, RA)	17	RN	Female	Caucasian
Marcus	Semi-structured Interviews	5.5	RN	Male	Caucasian



## Appendix B

### Consent Form



**This consent is for minimal risk research.  
This consent is NOT APPLICABLE to VA  
Studies. Delete this box and all instructions  
from the final consent.**

### Informed Consent to Participate in Research

#### Information to Consider Before Taking Part in this Research Study

IRB Study # \_\_\_\_\_

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Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study.

We are asking you to take part in a research study that is called:  
Emergency Medicine Triage as the Intersection of Storytelling and Sensemaking

The person who is in charge of this research study is Colin A. Forde. This person is called the Principal Investigator. However, other research staff may be involved and can act on behalf of the person in charge.

The person explaining the research to you may be someone other than the Principal Investigator: Eric M. Eisenberg.  
Other research personnel who you may be involved will include: Lori Roscoe & Meagan Araujo

The research will be done at Southeastern Trauma I Hospital.

This research is being paid for by USF.

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#### Purpose of the study

The purpose of this study is to:

- Uncover the tools and techniques that triage professionals employ to make sense of patient stories in the emergency department (ED).
- This study will serve as a launch pad for Colin A. Forde's dissertation regarding how patient demographics may influence how patients are triaged in the ED.

## **Appendix B: Continued**

### **Study Procedures**

If you take part in this study, you will be asked to:

- All participating triage professionals will be asked to engage in a 30 minute – 1hour interview where they will be asked to verbally respond to a questionnaire regarding the sensemaking process in the ED
- The study will be conducted approximately over a 4-month period with multiple observations of triage professionals interacting with ED patients over varying shifts with this Southeastern Hospital ED
- Eric M. Eisenberg, Colin A. Forde, Lori Roscoe, and Meagan Araujo will have access to all audiotapes and transcribed patient observations and triage professional interviews which will be d-identified per triage professional and ED patient
- All audiotapes and transcriptions may be maintained up to 5 years post study
- All identifiable materials will be appropriately sealed and discarded at USF, where materials will be shredded and/or burned – Additionally, any information that is transcribed electronically will be deleted from all respective hard drives – all aggregate or d-identifiable information will be maintained for an infinite time period

### **Alternatives**

You have the alternative to choose not to participate in this research study.

### **Benefits**

The potential benefits to you are:

- Increased understanding of how triage professionals make sense of patient narratives
- Possibly increased understanding regarding how economic factors impact the sensemaking process among triage professionals
- Insight regarding how the evolution of the patient story impacts the ability of the triage professional to “sell” the patient story
- How does the triage process differ across multiple hospital sites

### **Risks or Discomfort**

This research is considered to be minimal risk. That means that the risks associated with this study are the same as what you face every day. There are no known additional risks to those who take part in this study.

### **Compensation**

We will pay you for the time you volunteer while being in this study. Triage professionals (participants) will receive a reasonable gift card for their participation during conducted interviews.

## **Appendix B: Continued**

### **Confidentiality**

We must keep your study records as confidential as possible.

- All identifying information (types and transcripts) will be stored and used for the length of the study or up to 5 years post study
- All identifying information (types and transcripts) will be locked in an office cabinet. Only the study investigators will have access to this cabinet (participants names will not be used, instead we will depend on a double-blinded number system to d-identify participants)
- The study only involves audio recordings and may be applied in future research studies regarding sensemaking in ED's

However, certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are:

- The research team, including the Principal Investigator, study coordinator, research nurses, and all other research staff.
- Certain government and university people who need to know more about the study. For example, individuals who provide oversight on this study may need to look at your records. This is done to make sure that we are doing the study in the right way. They also need to make sure that we are protecting your rights and your safety.) These include:
  - The University of South Florida Institutional Review Board (IRB) and the staff that work for the IRB. Other individuals who work for USF that provide other kinds of oversight may also need to look at your records.
  - The Department of Health and Human Services (DHHS).
  - The Florida Department of Health, people from the Food and Drug Administration (FDA).
  - People at the company who paid for this study may look at the study records.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are.

### **Voluntary Participation / Withdrawal**

You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study, to please the investigator or the research staff. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not to participate will not affect your student status or job status.

### **Questions, concerns, or complaints**

If you have any questions, concerns or complaints about this study, call Eric M. Eisenberg at (813) 974-0853.

**Appendix B: Continued**

If you have questions about your rights as a participant in this study, general questions, or have complaints, concerns or issues you want to discuss with someone outside the research, call the Division of Research Integrity and Compliance of the University of South Florida at (813) 974-9343.

If you experience an unanticipated problem related to the research call Colin A. Forde at (813) 407-8346.

If you have questions about your rights as a person taking part in this research study you may contact the Florida Department of Health Institutional Review Board (DOH IRB) at (866) 433-2775 (toll free in Florida) or 850-245-4585.

**Consent to Take Part in this Research Study**

It is up to you to decide whether you want to take part in this study. If you want to take part, please sign the form, if the following statements are true.

**I freely give my consent to take part in this study.** I understand that by signing this form I am agreeing to take part in research. I have received a copy of this form to take with me.

\_\_\_\_\_  
Signature of Person Taking Part in Study

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Person Taking Part in Study

**Statement of Person Obtaining Informed Consent**

I have carefully explained to the person taking part in the study what he or she can expect.

I hereby certify that when this person signs this form, to the best of my knowledge, he or she understands:

- What the study is about.
- What procedures/interventions/investigational drugs or devices will be used.
- What the potential benefits might be.
- What the known risks might be.

\_\_\_\_\_  
Signature of Person Obtaining Informed Consent

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name of Person Obtaining Informed Consent

## Appendix C

### Semi-Structured Interview Questions

1. How did you come to do triage?
  - a) How long have you been doing triage?
  - b) How did you learn what to do? Was there any formal or informal training?
2. In your own words, what is the main goal of triage?
  - a) What do you consider “success?”
  - b) In addition to this main goal, does triage serve any other functions?
3. In your own words, describe how you go about the triage process.
  - a) Are there formal steps that you are trained to follow?
  - b) Do you have your own step-by-step approach?
  - c) Are there particular “rules of thumb” that you have developed that characterize your own approach?
  - d) How do you get from the patient’s story to a numerical triage classification?
  - e) Has the way you triage patients changed (or not) over time as you have become more experienced?
4. Tell us about a time when triage was easy and when triage was most difficult. What makes triage difficult?
5. Does your triage process vary due to external factors (please give examples)? For instance:
  - a) Number of people in the waiting room?
  - b) Time of day or day of the week?
  - c) Available beds in the ED or the hospital?
  - d) Patient’s mental state?
  - e) Patient’s appearance (e.g., age, race, gender)
  - f) Availability of treatment services (e.g. psych, geriatrics)
6. How do available computer systems or technology affect the way that you do triage?
7. The hospital has recently begun experimenting with different models of triage that involve physicians differently. How do these new models affect the work that you do in triage?
8. How does the triage process shape a patient’s overall experience in the ED?
9. If there were one thing that you could change about triage to improve its effectiveness, what would it be?
10. What have I not asked you that you think I should know about the triage process?

## Appendix D

### Floor Plan of Research ED Facility



## **Appendix E**

### **Eight-Hour Training Course Segments**

1. History of triage and ESI: This part of the course discusses the evolution of triage, triage history (i.e., militaries use of triage on the battlefield), comprehensive triage (i.e., triaging elderly and pediatric patients, obtaining patient histories, taking vitals, under-triage, over-triage), current study facilities practice, triage acuity (i.e., emergent, urgent, nonurgent), ED trends, and utilization of ESI.

2. Customer service: This section discusses the ideas such as defining who are this Southeastern Hospitals' customers, basic customer service (i.e., following HIPPA, positive body language, communication regardless of delays is essential for positive outcomes).

3. Documentation: This portion of the training focuses on the essential components of capturing such things as (i.e., time seen by triage nurse, allergies, vital signs, acuity determination, disposition, chief complaint—patient's own words, current medications).

4. Study facilities procedures and protocols: This aspect of the course outlines the ER nursing record, pretriage form, triage nurse job responsibilities, and pivot nurse responsibilities.

5. Cardiac emergencies: This discusses the myriad of reasons why patients may experience chest pain and reviews such things as chest pain assessment mnemonic, cardiac risk factors, subjective and objective assessments, and differential diagnosis chest pain.

6. Respiratory emergencies: This section of the course involves identifying patient chief complaints regarding respiratory distress, subjective and objective assessments, and review of precipitating events.

## **Appendix E: Continued**

7. Neurological emergencies: This reviews key symptomatology of neurological distress (i.e., headache, stroke, meningitis) and reinforces the importance of documentation (chief complaint, subjective data, and objective data).

8. Animal bites: This section reviews the context in which animal bites should be assessed (subjective and objective data), and also, the section reviews the role of the patients' personal history, triage level, the importance of reporting, and snake bite protocol.

9. Special considerations: This portion of the course includes multiple issues including (i.e., legal considerations, psychiatric patients, cultural and religious considerations of patients, language barriers, benefits of ESI, further explanation of ESI levels, and pearls of documentation).

10. Pediatric triage: The section reinforces the goal of pediatric triage which includes basic triage protocols, assessment, and review of general pediatric emergencies.

11. Questions, test, and course evaluations: The test is always a multiple question examination reviewing the 11 aforementioned segments that makeup the 8-hour course.



## Appendix F

### Patient Observations

Patient Observations Dated 5/9/11:

1<sup>st</sup> case: Nicola (triage professional) – patient (pt.) presents as a psyche consult – patients (pts). black female (BF) presents into the ED also with a list (consisting of pts. meds) and also presents with the majority of pts. narrative

2<sup>nd</sup> case: chief complaint (c/o) abdominal pain – Nicola states, “this one may be really sick.” Which is determined by initial “eyeball” exam – 3<sup>rd</sup> yr. resident (advisor) seems to be engaging in a lot of verbal/nonverbal communication with Nicole – which occurs in plain view of pt. (this was regarding what should of taken place prior to pt. coming into the ED) –this seemed quite distracting to the patient

3<sup>rd</sup> case: Pt. presents into the ED with right (R) lower quadrant pain – the son of the pt. takes on the voice of the mx – as the pt. is pushed out of the ED per her wheelchair, she claims to have major foot pain – this does not seem to come up during the initial interview – it is actually determined that the pt. has a foot ulcer – which Nicola claims to be incredibly important due to pts. diabetes

4<sup>th</sup> case: pt. black male (BM) staff claimed that pt. is drug seeking – based on objective signs such as increased BP, but pt. seems to be preoccupied with getting pain meds refilled due to “intense knee pain.” Staff refers to pt. as “Hollywood” – pts. recognized as “frequent flyer” and is always in the ED with his “Hollywood routine.”

5<sup>th</sup> case: pts. c/o of Claudia Elena disorder (D/O) (restless leg syndrome) – claimed that pain ranked 8 on 10 point scale – pt. claimed that “butthole” would not open – c/o of tremendous constipation - also presented with an enlarged carotid artery

## Appendix F: Continued

### *Reflections of 5/9/11*

- Seems to be a great reliance on heuristic decision-making versus more objective signs
- Continue to pay close attention to pain scale – great subjectivity on both sides
- ED recidivism rates seem high

Patient Observations Dated: 5/10/11 (1PM-4PM)

Hung out at pivot area – this is where Jolia spent a great deal of time explaining the “eyeball” concept – she claims the idea is to fast track pts. (classified by so so sick, in between sick, no admission – determine if pts. are “walky and talky – goal if pts. are horizontal keep them that way – Jolia claimed that the pager at the desk presents some of the following problems:

- General IQ of pts. (issue of understanding)
- Pts. tend to lose pager and don’t remember where to go
- Pager usually on backorder – due to lost or stolen

\*\* Possible resolution:

- Develop a multilingual system
- Get paper ticket
- Adopt DMV (department of motor vehicles) concept – everyone gets a ticket that enters into the ED

## Appendix F: Continued

### *General thoughts:*

- Renice (triage professional) claimed that there tends to be less hierarchy among docs and nurses in the ED compared to other areas of medicine

Patient Observations Dated: 5/11/11 (11PM-2AM)

Conversation with Lania (ARNP) third level provider, Jennifer (triage nurse), and Robert (paramedic)

- Confirmed much of what they do is about intuition – “gut feeling”
- Often times triage professionals (ED docs) “tweak” the truth to sell the story up the “food chain”
- Discussion with one of the paramedics - he claimed that often times triage nurses tend to over order – he claimed (Robert) that they “don’t have a real good grasp of who’s dying and who’s not – North Carolina one of the only places that allows paramedics to give orders
- Press Ganey Scores (vehicle for pts. to provide input regarding their experience through a pt. satisfaction survey – it appears that medical reimbursement is tied to Press Ganey Scores
- LWT (left without TX) AMA (against medical advice) – mid-level provider (ARNP/3<sup>rd</sup> year resident) ensure that the hospital is reimbursed for care

Ongoing challenges of ED professionals (as claimed by ED professionals):

- Must become desensitized to the pt. experience
- Frequent flyers

## Appendix F: Continued

- Pain scale (somatic c/o)
- Objectivity (does not measure everything – must rely on senses)
- Legality – seems to heavily influence decision-making

Patient Observations Dated: 5/13/11 (4PM-6PM)

Observed Marcus, RN, at pivot – “who’s in charge?” “I am.”

EMT brought patient from ambulance bay to pivot, slumped in wheelchair with back pain and left knee pain, patient reports 15 surgeries and full hip replacement, anxious, won't wait, decides to leave and "self medicate"

Another male patient lying on floor in front of wheelchair with rectal bleeding-details emerged from Meagan and Colin's observations in triage

Pods are inappropriately named-patients sent to the stroke pod or chest pain pod don't have those symptoms, patients and families are confused-named by donors

Pivot RN sends kidney transplant patient who can't eliminate right back to triage-transplant patients are always emergent

Pivot desk is very customer-service oriented - acts as dispatch (along with Communication (COM) desk) who track all patients in the ED and allocate beds

If pregnant, 20 weeks and under seen in ER, over 20 weeks sent to OB

3 younger patients, 2 males and 1 female, involved in minor motorcycle accident, girl has no health insurance and is concerned about payment, told just to wait and not worry about it

Patients are surprised that they can fill out initial paperwork while standing at pivot desk-only 5 questions, includes chief complaint but nothing about insurance

Patients are given pagers and told to wait in waiting room, triage nurses set pagers off by

## Appendix F: Continued

telephone or call patient's name to waiting room

Woman in late 40s or early 50s with persistent cough-given facemask "every time I cough I wet" and a pad to put on wheelchair seat

55 yo black woman with HIV taken to sub-triage, very loud, crying

So much information exchange happens on the fly-someone walks by and knows where so-and-so is, or what a particular patient's status is

Tr, RN, Triage

Woman in late 30s had liver transplant 3 years ago, just moved in town with no doctor, relies on transplant doctor in Kansas City, in ER due to fatigue and elevated liver enzymes

ARNP in triage at resident desk

Edwin -young black man with shoulder to finger cast on arm for a cut-punched a window (ARNP asked him what happened, triage nurse just asked about why he was there - said he was supposed to have cast removed a week ago, but had been in too much pain and was just lying on the couch for the last week) - not told to return to clinic as originally instructed, told he would be taken care of in ER-patient's story not challenged

Mood is relaxed, funny warm Patients do not notice or care that we are observing their interactions

Dehydrated patient 12 weeks pregnant, husband does all the talking, patient is vomiting, dizzy, has trouble talking, prior miscarriage, "factor 5" -Tracy says to patient, "I'm sorry" and to me "I don't like the pregnant ones, I worked through my entire pregnancy"

Everyone is clean conscious, lots of hand washing, hand sanitizing

## Appendix F: Continued

Only prior ER admissions are accessible easily--other hospital records could be accessed through another software package, but there is not time to do so

Terra says something to every patient on their way back to the waiting room that makes them smile-when I point this out she says her mother would be mad at her if she wasn't nice to people, and that she may be these patient's last resort

Patient Observations Dated: 5/17/11 (4PM-8PM)

Hanging out with Joyce and Meaghan (asst. at pivot desk)

- Observation (average daily pt. load at this Southeastern Hospital 200-300)

Case 1: WM (White male) (chest pain) LWT unwilling to wait 3hrs for care (\*\*like to get numbers relating to LWT & AMA- against medical advice)

Case 2:

- Pt. presents with bleeding hemorrhoids (son was interpreter – language barrier) was placed in ED immediately

Observation – PCT (patient care tech) or runner - Joyce claimed during a VIP pt. experience – a PCT was observed engaging in multiple nonworking phone calls on cellphone – after that situation – the PCT program was disbanded - due to significant c/o by staff – This Southeastern Hospital may be considering re-trialing this program

Observation – decisions are being made prior to pts. walking into the door in terms of the role of natural human reaction:

- Door to doctor time without Treatment (TX)
- LWT

## Appendix F: Continued

- Press Ganey Scores

(door to doctor time & LWT - key markers for establishing efficiency)

Patient Observations Dated: 5/19/11 (5PM-8PM)

### *Conversation:*

According to Roberta (triage charge nurse) ER seems to be top heavy – moving beds to upstairs units – calling reports- making available beds – shutting down doors –

Ambulance bay: “communication nurse” or “traffic cop” deals with transfers – initial reports – physical report – keeps eyes on traffic – keeps eyes on beds and pods – responsible for flow of ambulance (i.e., avg. about 20-30 between 3-11 shift)

Patient Observations Dated: 5/20/11 (630PM-8PM)

Chest pain Area – seems to get the influx of pts. – closes at 10PM- then becomes a place where pts. Are sent if in need of more beds – its seems to become quite chaotic particularly on Monday’s – considered the BUSY triage day)

Patient Observations Dated: 5/23/11 (12PM-3PM)

Notice no AC in waiting room as I come back, fans going, very uncomfortable At COM desk with Angie and Jennifer Constant EMS arrivals

Goal is for each pod to have their beds filled and 2 patients in hall beds-Angie and Jennifer have to track this and suggest to pod nurses which patients can be moved so arriving patients can have beds

More examples of communication on the fly-why didn't you tell me you were going to lunch?

## Appendix F: Continued

Jennifer tells Angie to "chill out" and make the pod nurses do what she says

12:31 pm      2 EMS patients arrive--one from military base with abdominal pain, taken to a bed immediately- Jennifer says that the contract with military base is important to this Southeastern Hospital and that men and women in the service should not be waiting in the waiting room

Jennifer calls everyone darling, sweetheart, honey--cajoles, asks first, then demands after third attempt to get everyone to follow her lead-usually please do this first, then do this, then do this NOW

12:36 pm      baby brought to ER with difficulty breathing, dad does not speak English, EMS tells Angie that the baby was seen in a clinic and brought to ER with respiration rate of 122, Angie and EMS laugh "that's impossible, must have been heart rate"-goes to Peds bed, Peds is less busy

12:41 pm      another MacDill patient with a knee injury taken right to triage  
Not every ambulance arrival goes to a bed, some less urgent are sent to the front for triage by pivot RN

Angie's beeper constantly going off "45 year old (yo) with chest pain ETA 3 mins"

Should document workflow get counts of personnel overall ER volume how much of the work depends on relationships, VS. status vs. authority, vs. policy?

Pivot RN comes to Com desk to negotiate for a bed

52 ER beds, 651 hospital beds 12:56 pm    EMS arrives with a patient who is a direct admit-doctor faxed orders and a bed was ready, COM desk happy because (blc) no need for triage



## Appendix F: Continued

Most EMS do not talk to patients, but joke and talk to Angie-this EMS told patient, "Just relax"

Angie-"everyone gets mad at the COM desk b/c I am slamming them, not everyone is assigned to work at COM desk, you have to have the big picture in mind"

Angie arrived at 7 am 30 min break 1:15-1:45, leaving at 7 pm

Jennifer constantly negotiating process issues--a nurse was on break, a call from a doc went to a recording "so I got screamed at once, no big deal" - works with nurses in pod to arrange for phone coverage

Jennifer covers for Angie and does her job during Angie's break, any time she leaves her desk someone comes by looking for her-Jennifer works with no break today due to volume

Constant multitasking-answering phones, scanning patient status, counting beds, stats on ER status (80 patients in waiting room at 12 noon = crowded, 84 patients = severely crowded), clinical skill, management, interpersonal communication, work flow

1:29 pm heavy set man comes in, fell in bathroom and hit head, unconscious, not breathing when EMS arrive, brought to ER as full code, EMS doing chest compressions as they arrive (patient was probably dead on arrival (DOA), but not pronounced dead until his wife, a social worker at this Southeastern Hospital and her family could be located and notified of patient's condition) Patient was diabetic, had pacemaker, history (hx) of cardiac problems

Chaplain called to his room in trauma bay Jennifer leaves desk to locate family and talk to wife

## Appendix F: Continued

1:38 pm EMS arrive with 61 yo black woman on oxygen, joke with Angie, "no one has a life outside this Southeastern Hospital"

Code purple called - hospital employee injured, didn't take blood pressure medicine this morning b/c "it was just one of those days" and blood pressure (bp) is not 216/160, headache, whooshing sound in ears, 45 yo Hispanic woman, docs from her floor come to see her, maybe she does scheduling in the stroke unit?, patient said "May is a bad month for me"

37 yo from air force base with knee pain

49 yo from assisted living facility (ALF) with schizophrenia, knee and elbow pain, EMS says he needs a sitter so he doesn't walk out

Waiting for room to be cleaned, talk of "terminal clean"

2:15 pm Jennifer thanks everyone as she leaves, Heidi takes over

Angie uses her gut feeling to check notes on patient records, sometimes psych hx not noted, patient who complains of "pain everywhere" and "mouth being electrocuted" sounds to her like psych hx which she confirms

2:24pm 75 yo with syncopy, 40 yo man vomiting blood and altered consciousness

Cardiologist comes by to tell Angie that the 75 yo grandmother of one of their cardiology residents is arriving by ambulance and that regardless of initial diagnosis, should be admitted to their service-some notes written on scratch paper

Angie remarks about "lots of VIPs today" (employees, military base patients, spouses and relatives of employees)

2:47 pm patient described by EMS as "older than normal" with pic line and pain in

## Appendix F: Continued

arm, probably DVT (deep vein thrombosis)

3:00pm man who rode his bike to his doctor's office arrives by ambulance, prior psych hx

3:05 pm man arrives by ambulance also with psych hx, thinks he has colon cancer, had blood in stool 7 days ago, "confused story," Angie says to EMS "tell me why I can't send him to the front for triage," psych hx usually means they will keep him close by

3:06 pm man who was riding tractor and hit by minivan, LOC, finally arrives by air  
Finally left at 3:15 pm

Patient Observations Dated: 6/1/11 (830PM-1130PM)

Spent time today observing the flow of the lobby area (pt. waiting room) – seems from a communicative perspective quite dislocated – pivot nurse cannot observe all spaces within lobby area due to structural shape of ED – this, I believe, would make pivot nurse dependent on other pts. for play-by-play events of lobby – i.e., if pt. losses consciousness in lobby area – pivot nurse may only know if alerted by co-pts. in the lobby area – this may result in delayed response. Additionally, some pts. depending on presenting problem, have difficulty understanding pager system (may be consider placing “runner” on the other side of pivot desk

Case 1: mx presented with son who provided the mx's narrative – mx seemed very disengaged and c/o of chest pain – when pts. walked out of sub triage, son came back and claimed that mx may be having some sort of “psychological disturbance” due to parents abusive relationship

Possible things to know (regarding conversation with Ariel):

## Appendix F: Continued

- Manchester Triage System (acuity scale) system used in UK – claimed “easy to use)
- C -Task (claimed very comprehensive – used in Canada – also being used at HCA

Patient Observations Dated: 6/1/11 (1015AM-145PM)

COM desk with Cameron, Com desk, and Mo, charge nurse

Hispanic appearing man comes by EMS with clogged G-tube and nausea and vomiting from the City clinic--does not talk--Cameron makes a face-sends him right to a bed-if he isn't seen quickly he will be back the next day?

Mo: "we're busy and we're sick" trauma rooms are all full "balls to the walls" and 5 patients are holding for trauma beds "things should really start cooking at 3 pm"

2 patients in pods waiting for ICU beds

85 yo female with small hematoma, slid out of wheelchair at a Rehab in outside of town, no neck or back injury, zero complaints, Cameron asked Mo for her opinion, Mo asked for more medical hx, patient is taking Coumadin so goes to a bed

Another EMS patient arrives--diabetic, hypertensive, has "head pressure," non-English speaking, heart palpitations, EKG done in the field fine

Mo goes to the two open pods, if patients' vitals are stable, they can go in the hall since they don't need cardiac monitoring "that's the temperature of the water today"

10:44 am EMS brings man in with abdominal pain since 7:30 am, has right sided hernia, thin older man talking a lot to EMS, EMS yawning, nodding, vitals stable so sent to sub triage

Registration nurse talking on phone to nurse in pod station "chicken is protein"

## Appendix F: Continued

Camille explains that the COM desk is also supposed to follow up with a long list of patients who were admitted to ED but left with unresolved issues—like blood culture results, need MRI Supposed to be done "in down time," Mo says, "you won't get far down that list today"

There is a rapid turnaround pod but several restrictions about the kinds of patients that can be seen there

Beyond busy morning, everyone is happy to see the nurses with 11:00 am shift start times arrive

Intake is ICK--quick turnaround pod, never would send an elderly patient on blood thinners there

sending liver transplant patient with 102-degree fever and possible bi-lateral pneumonia

Jennifer comes by and asks how study is going-I tell her and Mo that we will be here through the end of June, they say "don't extend the study into July! That's when the new residents arrive!"

Triggers: Coumadin, bounce back patients who were recently seen in ED, transplant patients, elderly, MacDill

Software package looks very outdated, old fashioned---could it not be a more IPAD oriented display? Something more spatial and less of a list?

In the mornings only 2 pods are open, and third pod opens at 12 noon

RN concerned that her patient's blood sugar is being documented as "untreated" even though she is treating it with the medications she is allowed to administer without the

## Appendix F: Continued

doctor's orders for an insulin drip Mo reassures her that this is just what it is called when the blood sugar doesn't respond and that she is doing the right thing

Mo refers to "pastoral" care

What is the triage/allocation strategy when everyone is sick and there aren't any rooms/beds?

Patient with toothache in waiting room, daughter gets her a coke so she can take her medicine, patient has been waiting a long time without being seen Mo audits this record from printer, tells nurse to document the "story that goes along with it" so the ED doesn't get in trouble

Nervous agitated and crying patients are moved from waiting room to sub-triage patients who are too upset - are seen as "head cases"

Large younger black woman clutching her chest arrives via EMS-thinks she is having a heart attack but EKG is normal, hx of anxiety, blood pressure 141/95

Try to hold 2 trauma beds for patients who are coding, Mo asks Cameron to tell her "how sick are we?"

2 patients have been intubated in the ED-one has sickle cell and has been "circling the drain" all day

Justin Connors comes to charge desk, he is the Patient Flow Administrator in charge of allocating all the hospital beds-used to be called Patient Flow Coordinator, but that sounded like his decisions were suggestions rather than orders, if they are not obeyed, the other party is guilty of insubordination

Justin's rules of thumb are safety [fairness second Justin and Mo consult, Mo "I have

## Appendix F: Continued

to look at a screen"

EMS brings 20 month old African American baby accompanied by his mother, high fever, Mo immediately goes over and talks to the baby, he cries, EMS says "this is the most chill baby I have ever transported" Mom seems to feel better since her baby is getting this kind attention and no one is panicking

Angie scheduled to go to pod "Chest Pain" scheduled to open at 12 noon-patients have been lined up for this pod since I arrived at 10:15 am Anna comes to Mo at 12:13 pm-where's Dr. Jenkins? "I have 10 really sick patients in the beds and no doctor"

Pretty soon Angie returns b/c missing doc is entering orders on the patients in the chest pain pod, remotely, still hasn't been seen

56 yo coming by ambulance from a nearby County with intracranial hemorrhage-Mo calls dispatch to see why they aren't coming by air-pilot turned it down due to bad weather approaching-pretty soon a huge storm hits

Very hierarchical, Mo accepts pilot's decision - if it's your decision to make, make it and be able to explain it

Man who has injured his testicle with a chainsaw brought in by EMS-taken to bed immediately, was going to go to newly opened chest pain pod but since doc is a no-show, Mo has to get another doc to see the patient immediately

12/28/93 yo woman with ground level fall comes from ALF, bandage on head, alone

Mo furious about the mess in Stroke 1 across from her desk-the patient has been there for 10 hours waiting for an ICU bed, patient's daughter comes to be with her and the room is a mess-linens on floor, floor dirty, used cups and straws, Mo loses it

## Appendix F: Continued

Missing ER doc finally materializes, says "why is everyone asking where I have been? Haven't I entered orders on all my patients?" Mo leads him always down the hall and says "but you weren't here and you didn't see the patients before you entered the orders" and he says "I am not accountable to you" and Mo says, "well yes you kind of are" and then the doc turns red, marches away

Mo calls the nurses in the pod and tells them the story, tells them to give the doc an hour to cool off and then if he is still a problem to come and get her-turns out the doc was "hiding" in a trauma room entering orders so he could do it without being interrupted – this was not cool at all

RN "just took testicle boy back, yeah I helped control the bleeding and then went and ate some peanut butter"

Patrick Kingfield, RN ED Nurse manager comes by, sees the messy room that had Mo upset, tells the nurse, "yeah the old ball and chain" about the testicle accident

Patient calls com desk hysterical about a follow up letter she received about needing to get an MRI-Cameron passes patient off to Mo who explains how she is supposed to get an MRI and who should get the results, this takes 15 minutes

Huge group of chaplain residents come through-2 in monks robes, etc.

Patient Observations Dated: 6/3/11 (300PM-600PM)

Lorraine and Maggie at Pivot

Beatrice, Pivot RN

According to Beatrice: "The name of the game in pivot is to grab the beds for my patients before the Com Desk gives them to EMS"



## Appendix F: Continued

Beatrice very aggressively gets beds as soon as the room is cleaned-in fact, she also called a PCT named Angela and asked him to clean the rooms for her

Beatrice called COM-"try not to bump my 75 yo who had a car accident last night and who recently had abdominal surgery" Then to us: "she's stable but I don't want her sitting out here too long, it's already been an hour so I'm saving a room for her."

Then Justin called her-couldn't make out the conversation assuming it is to check on her aggressive bed holding?

87 yo woman fractured her leg jumping out of a plane, in Trauma Young black man with small child checks in to get stitches in his forehead removed

Young woman was fishing and caught a huge redfish and pulled something in her stomach

Beatrice tells racist joke: tells us about a young mother who brought her child in because the child said "ouch" when a jellyfish swam by - I said "must be her first child" and Beatrice said "probably not, she was at least 20 (years old)"

Had been very slow all day-was this why Beatrice could get beds?

Tells us that even chronic alcoholics, "drunks," need to be cared for-that alcohol in your system acts the same as Plavix or aspirin in an older patient

Pregnant woman in labor, close to due date of June 16, husband says she was in labor 49 hours with first child, sent to Labor and Delivery

Beatrice talks to us about the problems with Labor and Delivery-that there seem to be no hard and fast rules about who they will take and who they want to be seen in the ED Mark had told me previously that up to 20 weeks patients were seen in ED, after 20 weeks

## Appendix F: Continued

always sent to L&D--Beth says it all depends on who is in L&D (didn't ask her about Marcus's rule of thumb)

Black woman moaning "oh Jesus!" - daughter said the woman's GI doc sent her to the ER

9 yo child diagnosed last week with diabetes-"he's peeing a lot" and mother said hospital sent her here so that her son could see a certain doctor but that that should come to the ED

Man who had 3 surgeries last week and wanted to come to the ED for pain before traffic got bad-he had been out of the hospital for 2 days

26 yo man with his mom-he had a broken hand but cut his cast off because (bc) his fingers were tingling, was supposed to have the hand surgery set but could not bc he has no health insurance, very pissed off at his mom

All the RNs love babies and make a huge fuss over them

Another pregnant woman in labor, 3rd pregnancy but not due until July 14, water leaking, contractions 8 minutes apart, send to L&D

5 month-old African Am baby with congestion and some red mark on chest-Beth fills up the PEDs beds right away

83 yo man drives himself to the ED-said he called his nurse at the VA who told him you are having a stroke, get off the phone and go to this Southeastern Hospital! He said his symptoms of heaviness in his legs started at 3 pm, he was joking, Beth sent him back immediately then looked at us and said, "there's no way he is having a stroke, but since there's a narrow window for TPA I can't have that on my conscience" Beatrice insists that

## Appendix F: Continued

the man be taken back immediately-she explains that he's a "good 82" not some gomer sitting there

Patient tells us that there is a debate about whether to sit down or lie down if you think you are having a heart attack or stroke-if you lie down and die, the devil will pull you down, if you are sitting and die, the angels will pull you up

Man comes in wearing a t-shirt that says "Give me head until I'm dead"-looking for his 16 yo daughter who was brought to the ED - h e was at the McDonald's in the hospital bc his son is having surgery

Little Asian girl throwing up 6x during the day

African Am woman in wheelchair with poorly wrapped leg-said she had surgery 10 days ago, leg is bleeding and painful

Young woman comes up and asks "where am I in the pecking order? I have been here a lot longer than some of the people that are being called in"-she needs blood work done but her veins are shot and the blood has to be taken from her neck, which can't be done in sub-triage, she just has to wait

Man in his 50s comes in with daughter and son or son-in-law-had a stroke on Tuesday, saw his doctor in town, still having symptoms, there's a gnat flying around in my vision, other visual distortions

50 yo man fell 20 feet out of a tree from a hunting platform at 9 am-shattered his heel and arm, stabilized in a nearby town but his wife didn't want him to have surgery there, called FOI and they said bring him to this Southeastern Hospital-Beth helps get him out of the car and into a wheelchair, very pale, grayish skin tone, obviously in severe pain

## Appendix F: Continued

20 yo man with locked jaw

African American woman with 10 or 12 yo son-says he had an "allergic reaction" yesterday and had been seen in the ED, hallucinating today so she brought him back-kid appears completely stoned out of his mind wearing a Pony baseball shirt-registration clerk asks him "so do you play baseball?" and he says, "are you talking to me?" and when she says yes, kid replies that he does not know Beatrice does not notice how out of it the kid is, and calls PEDs and says that he has chest pain and needs to be seen immediately-registration clerk and Meagan and I ask Beatrice what she thought of his mental status, and Beatrice said she didn't notice it!

20 yo Asian woman with a wisdom tooth problem-sent to PEDs--patients up to age 20 can go to PEDs Beatrice and registration clerk exclaim "We love 20 year olds!" (since they can go right to PEDs

Registration clerk tells patient she loves her bday-1-9-91

Registration clerk tells us that even though she has no clinical training, she tries to get additional information to give to Pivot RN when they get busy

Young mother and grandmother and 4-week old baby "Isabella"-"we're back. She's still not holding her food down" -registration clerk fussed and fussed over this baby, said "we are glad that you came back!" and then turned to us and said, "that baby didn't get sick that suddenly, we entertain these people way too much!"

Beatrice checks again to make sure the 83 yo "stroke" patient is being seen-justifies her gut feeling about him (that he needs to be seen even though she is sure he isn't having a stroke?) but telling us a story of a 44 yo man involved in a 4 wheeler accident who

## Appendix F: Continued

downplayed his injuries but ended up with multiple fractures

16 yo comes in with his father--cut his toe on a barnacle shell while scuba diving--dad presents note saying the his son needs surgery TODAY and All Children's and St. Joseph's both turned them away step father follows ~few minutes later, smelling strongly of alcohol

Patients come up to desk, and ask "how long's the wait?" always told that it can't be estimated, some leave

43 yo woman in labor, due date July 8-upset because she wanted to take her 4 yo son to the movies but is now in labor

Young African Am boy with tom up splint on arm, maybe 8 yo? With mom and dad and 3 younger and very energetic siblings

Beatrice entertains us with more "only in the ER" stories---someone from the back comes up and shows Beatrice the name "Healthy Wong" on a patient chart, reminds Beth of a prostitute seen in the ER recently named....

Woman with hepatitis B and back pain—had to come to ER

2 young women in their 20's pierced and tattooed—one girl tells the other, "put chest pain, abdominal pain, and MRSA" on your form-tells Beatrice, "I'm doing better, maybe I will come back soon for detox" Beatrice tells us that 2 days before that girl was in the bathroom for a very long time, when Beatrice went in after her she found syringes, oxy?

Beatrice calls someone on the phone: "If I send Angela back to clean it, can I have Stroke 2?" Woman in her 30's with badly cut hand from doing dishes

## Appendix F: Continued

52 yo man comes in with his wife who says "my husband may be having a heart attack!" has had symptoms the last couple of days, the man shrugs

Patient Observations Dated: 6/8/11 (6PM-8PM)

HCA hospitals have instituted mid level providers, but if pt. does not have insurance, and still wants TX, the charge is \$150 - general lay out of ED – pivot desk, sub triage, psych unit, stroke pod, chest pain, intermediate care

Patient Observations Dated: 6/9/11 (1045AM-145PM)

Meagan and Lori

Meagan and I arrive, go to com desk and are happy to see Jennifer. She is overjoyed to see us and says she was just going to call us. She says a new employee in process improvement has been interested in doing a study to improve triage efficiency through a time study approach (!!) she introduces us to the structural engineer who has a USF degree in industrial engineering, and who has specialized in ERs, working for HCA over the last few years, and then implementing a triage efficiency program at HCA hospital-has been at this Southeastern Hospital 3 weeks-awesome, warm personality, happy to meet us and share ideas--we all agree to keep our observations and goals confidential between the 3 of us structural engineer (iv,.org)

her goal is to streamline the intake process why do patients come to the ER? TO *SEE A DOCTOR*

feels that this Southeastern Hospitals ER does not sufficiently make use of medics who are trained to determine "across the room" who is really sick using cues like skin color and facial expressions would be in favor of consolidating the 5 level acuity ER scale to 2

## Appendix F: Continued

levels: sick and not sick-uncertain cases (3s) would go to the "sick" side of the scale-talked to her about "not making patients feel that they are sicker than they are" and how this might skew the uncertain patients into higher acuity levels that the ED does not have facilities to handle

she tells us that this Southeastern Hospital puts the RNs in triage that no one wants to work with, that no one can get along with, and that can't "hustle"-which she believes is a mistake, and I am not sure I believe at all-she feels that the most experienced RNs should be in triage

she is not happy with the "fill out this form" process at pivot-she feels that the pivot nurse should be talking to patients, walking them walk in, and engaging them in conversation, not paperwork, especially since the paperwork is reviewed moments later by the registration clerk

since triage takes place entirely within the ED it is the easiest place to streamline and to demonstrate the benefits of being efficient the ER-to in patient admitting process is much more impactful and much more difficult to change since it involves every part of the hospital

she would change the layout of the pivot station-pivot nurse has to be able to visualize the front door at all times, and the crowds at the pivot desk and demands of paper work make this difficult

Arrival to seeing a doctor time is a key outcome-for patient satisfaction, for JCAHO, for MTALA (state that states that no hospital can delay care), and CMS

Patients need to see a doc-RNs cannot dictate a plan of care

## Appendix F: Continued

Peak volume at 3 pm, lunchtime, after work, Mondays so people can miss work  
Fri-Sat-Sun not as busy since people are off of work

Suggested we contact Dr. Castro in industrial engineering program at U S F  
specializes in health care and interested in starting an internship program to get more  
engineering students interested in health care

Triage is a process, not a place. Should not document entire patient hx or meds for  
example

Meagan and structural engineer stay in waiting room to document time lag from  
arrival, to paperwork at pivot, to waiting room, to triage

I go to hang out with Gloria, triage room 2 nurse (aka the shit-magnet)

Gloria is a very experienced ER nurse and loves doing triage-is she one of the ones  
no one else can get along with? In the course of our morning together, she tells me that she  
changes her strategy depending on who is at the pivot desk-Meagan spent time with Jilla at  
the pivot desk today so we can compare notes-Meagan said Jilla did not interact with  
patients at all

Gloria said she uses an exaggerated voice so that the resident that sits betw  
(between) the two triage rooms can hear her assessment and add what he/she thinks is  
important-I saw several times when patients were so relieved to see "Dr Dix" and that he  
came into almost every assessment 1 saw

Gloria's assessments of room neediness are first urgency of clinical status, and then  
waiting room time-she feels that she needs to advocate for her patients, especially if she  
feels that she and the pivot nurse are not on the same page-she will call the COM desk and



## Appendix F: Continued

the charge nurse to indicate patient acuity if needed, and says that if she says "I will document that I alerted you" that things change, patients are moved into the hall, and emergent patients of hers can be seen she was very judicious about using this level of advocacy

Mrs. H., 34 yo old woman, 245 lbs. (or more) 5'4" in wheelchair, arrived by ambulance, but sent to waiting room for triage, multiple prior ER admissions Had accident in bathroom, can't reliably control bowels, presents with nausea and vomiting, green runny diarrhea, says to me "hola"

Says she's scared, she has no health insurance but has been seen by Health Dept., just got her Medicaid straightened out

Resident in between triage 1 and 2-talking to patient I can't see who has been in the ER dozens of times, admissions every few days, patient of Dr. Rose, an excellent surgeon who takes on patients other surgeons would not take-resident tells patient "you have a chronic condition that the ER can't handle, you have surgical wounds that won't heal quickly, it will progress and take its course in a certain way, but the ER can't help with that"

Resident says "I won't give him pain meds, this just has to take its course"

Meanwhile, Mrs. H. (black mother) and large black male relative pound on triage 2 door-Glenda answers and tells them to sit in waiting room-now that MRs H has said she is a risk to self or others, she has to be searched, as do her family members

Gloria has a triage helper, Mo, who she says is busy being Moses and not helping her-a nurse named Barbara shows up, says my skull earrings are cute but inappropriate, offers to clean room for Gloria's patient

## Appendix F: Continued

Mrs. H. is moved to a room to be searched and changed, and when I say, "so what was that all about?" Gloria says, "that was total bullshit"-she has tons of ER admits, but will have to have medical clearance before admission to psych bed which and take a few days

Gloria talks about experience and judgment-how there have been suicides in ER (Gumping from parking garage or into river)

82 yo Hispanic man, non-English speaking, chief complaint 'sick' Use blue translation phones, Gloria says they are wonderful, in the past, had to chase down a Spanish-speaking employee-Gloria says pro favor, gracias, a few simple Spanish words

Patient has difficulty breathing, coughing, Gloria gets him a facemask

Gloria takes a very long time to go over meds---gets frustrated, patient talks a lot about every query, Gloria puts her hand on him to indicate enough even though he is talking to the phone interpreter-Gloria shakes her head repeatedly in frustration-tells me that interpreter is supposed to tell her exactly what the patient said, redundant, not clearly focused on answers to questions

Patient has been in ED 2x in last 3-mos---doesn't want mask, thinks he won't be able to breath easily since it covers face and nose, Gloria reassures him that it will be ok

Gloria "to clear her head" takes several minutes betw patients to review their prior records-this is what "Dr McGuirt" did last week that provoked big fight

Says she's afraid she's on her last stage, mv +, white, very overweight Says she has ovarian cysts too that are bothering her "Ryan Smith isn't helping me to get my meds!" "All I want to do is to go in back and lie down for awhile"-this is the red flag that cues Gloria that this whole story is in her words "bullshit"

## Appendix F: Continued

"I'm dizzy, seeing spots. I can't see anymore" Patient crying, moaning "pIs Lord, Hallelujah! It's hurting" -responding to blood pressure cuff tightening around her huge arm

Gloria says, we are full, you are going to have to do the best that you can and we will do the best that we can do for you

Patient out of two psych meds--out of everything Says "I don't want to live no more like this! I want to be Baker-acted, tired of the pain"

Gloria: do you have a plan to hurt yourself? "Lord take me out of my misery please"

Gloria very calm and continues assessment-patient calms down, keeps moaning, can't answer some questions

Gloria asks: "are you dead serious about getting psych help b/c that changes everything" Patient admits to marijuana use but not alcohol

Gloria asks, "how long have you been depressed?" patient answers, 2-3 months, later says that Gloria is the only person to whom she has confided her depression, Glenda says, "you have to be honest with people so they can give you the help you need"

Mrs. H: hypertensive, asthma, previous hernia and gallbladder surgeries, HIV+, bipolar schizophrenia

Says "I plan to walk in front of a bus" but answered no as to having a current plan, says she has been baker acted 5 x

Patient "I'm missing my baby so much and if I can't see him there's no reason for me to live" Gloria: "so sorry, we will take care of you" Patient "you are the first person I told about my depressions" Gloria has tried repeatedly to get the patient's blood pressure, but has been unsuccessful

## Appendix F: Continued

31 yo man with back pain, Gloria wonders if he is drug seeker since he was seen in ER 5 days ago--"maybe he didn't get what he wanted"

Patient accompanied by very articulate wife-helps his story, talks for him since he is in so much pain

Here 5 days ago, patient was changing water in fish tank but that wasn't a physically demanding task, and complained of sudden and severe back pain, finished meds given in ER 5 days ago (oxycodone and flexeril) didn't help much, can't see own doc until Monday, Gloria watches him try to get up from waiting room chair and into wheel chair, grimaces, very difficult

(implementing new ER software, EPIC, in the fall)

Gloria says triage is 50% gut feeling based on years of experience of seeing who is really sick and who isn't

Young man's face is swollen too and losing vision in that eye, says his eyeball is being pushed, has spasms in back, white, very articulate, Gloria calls him "the mystery child"

Only comfortable lying down, very difficult to sit in wheelchair or stand

Resident stationed betw triage rooms comes in "oh Dr. Dix!" wife exclaims, so good to see you, (resident was there Sat night when they originally came to ER), wife says as soon as you left they just discharged us

Gloria says it will be a while before I can get you a bed, but we can start some tests-MRI, patient says pain is "10"and is worried that his pulse is 110

Gloria calls the com desk and "blues" the patient-he needs a bed

## Appendix F: Continued

Gloria tells me that she prays on the way to work each day (husband retired cop)  
"please help me to know who is sick and who isn't"

Resident helps ER resident doc learn how to interpret x-ray of patient's broken hand and know where to administer injection (for hematoma?)

Next 2 patients that Gloria calls into triage room have left-54 yo old HIV positive woman who fell in tub and hurt chest; 43 yo with shoulder pain-Meagan watched these patients check in and then leave from pivot desk

49 yo man with CHF, looks much older, given oxygen when he checked in at pivot with wife, young looking late 40's, trouble breathing, uses oxygen at home Wife talks for him, mouths to Gloria, "he's not making sense"

Patient had seen cardiologist yesterday, doc called today and said to go to ER for balloon stent or pacemaker? Investigation about whether patient was direct admit-Meagan watched from pivot-no one could find paper work but it took a long time, many calls to cardiologist office, etc. Resident comes in to listen to patient's chest, and explains his role, patient and wife seem happy that he is there and being seen by doc Wife brings bag of meds, Gloria takes a long time to enter meds and doses, asks patient to verify each one, problem 8-10 Patient had open heart surgery one year ago to replace mitral valve and aortic valve, had 4 stents placed, also Maas procedure and CABG Has been admitted to hospital several times with pleural effusions, no blood clots found, and dehydration/kidney failure 2 weeks ago developed severe leg pain, hallucinations "alligator in car" patient moved to sub-triage to begin tests, wife stays with Gloria to finish hx-wife crying-so hard to hear everything he has been through, he is a nice, intelligent man

## Appendix F: Continued

Gloria says you have a great doctor, he will take care of you

Patient confused all day, forgetful, lethargic, falls asleep constantly, stutters  
sometimes, slurs words

Waited in waiting room 30 minutes

Gloria says, supposed to describe in triage notes, not diagnose Sodium 120, EJ 20%--  
patient problem there to replace defrib or pacer

Patient Observations Dated: 6/13/11 (10AM-12PM)

Meagan and Lori

Greeted by Jennifer at COM desk

Meagan shadows Kia in Triage, and Lori stays with Anna Roberts and then Jan at  
Pivot, Ingrod at registration Jennifer explains that Jan is new at pivot, "but if! Never put her  
there, she won't ever learn it"

Tall African American (Afr Am) man still wearing hospital ED arm band from Sat-  
still has diarrhea and vomiting

City employee, 27yo Afr Am woman accompanied by her supervisor, arrives with  
chest pain

Anna is looking for someone to help her get an 81 yo woman out of her car (driven  
to ED by her large overweight and very worried son) Son is afraid his mother will "pass out  
from the pain"

54 yo Afr Am woman in wheelchair wheeled by son, complains of swollen left leg  
and chest pain

3 patients come back to desk looking for buzzers that work

## Appendix F: Continued

Steph (tech) says that Vivian is supposed to be helping Ashlin in sub-triage especially with EKGs but is instead doing triage, suggests that Anna call Jennifer to get this straightened out

By 10:30 (15 minutes) the above patients plus 45 yo Afr Am man, 23 yo Hispanic woman, 25 yo Afr Am woman 2 pagers going off, no one available to take patients to the back-this is a real bottleneck sometimes

Nicola comes to pivot to discuss, heatedly, with Anna "who is changing the animal bite from T (treatment room) to I (ick, quick turnaround)?" Anna agrees that it keeps changing, but says she assumed that someone, COM desk or pod, was changing it Nicola explains that the animal bite is an older diabetic woman with a very infected animal bite on her lower leg, she will be admitted and needs a treatment bed

10:40 am-young Vietnamese woman accompanies her non-English speaking parents, mom is the patient

Anna: "Oh Lord, are US of those rooms cleaned yet?" as she dials the phone to see Young man who needed help getting his mother out of the car checks back: "I am afraid she's gonna pass out from the pain"

None or very little discussion of patient complaints, Anna is flustered and only able to answer her phone and look for rooms

Woman approaches desk and wants to pay her copay in cash-Ingrid tells her that it is \$250, woman hands her cash and wants receipt, Ingrid goes to the back to find out how to process this transaction, woman calls her insurance company, who tells her to only pay \$100 and have the rest billed-Ingrid comes back with the receipt for \$250 and has to redo

## Appendix F: Continued

the entire transaction-asks woman to step aside and asks tech to please go and retrieve the new receipt from the COM desk printer

Anna going to Chest Pain pod at 11:30 when it opens with Angela and Mo

Young woman comes in with 21 mo baby girl who was knocked off her feet playing in the "Spray ground" fountain at the children's museum-pediatrician office says she likely has a concussion and sends her to ED-woman says the baby was born at this Southeastern Hospital and has been there "many times"-no fuss whatsoever made of the baby, send to PD3

10:53 am-some problem since the RNs in the ICK pod aren't slotting their own rooms (?) Anna is frustrated-Lin arrives to Anna's great joy and picks up the phone and tells them nicely, "while I am at pivot, please do such and such so that things don't get confused" and says to Anna, "you just have to tell them how it is"

10:56 am--Large young Afr Am woman with 18 mo son arrives-no one talks to her, pretty crowded at desk, registration finally says "how far along are you?" patient says "38 weeks" and Anna says, "you have to go to L&D!" and patient says, "I know, but no one asked me what was going on" - truthfully difficult to determine that she was pregnant

Lin: "it's a typical Monday"

50's patient arrives, later according to Lin, walks in on her own, steady gait, has no problem with paper work, identifies her chief complaint as chest pain and a fall-Jen asks her "what came first" and she responds with chest pain, and then asks immediately how long of a wait there will be to be seen-Lin sends her to sub triage for an EKG Patient's husband returns to desk approximately every 10 minutes to tell Lin that his wife is in



## Appendix F: Continued

terrible pain, and Lin tells him that everyone is aware of his wife's condition, and as soon as they can see her in the back, they will call her-he problem comes to the desk 3 times

Lin says that she knew the woman would be a problem when she walked in *blc* although she clearly doesn't feel good, it isn't "an emergency"-how did she know? Patient walked in on her own with a steady gait, filled out paper work, but her first question was about the length of time before she could be seen

50-60 yo man accompanied by wife or daughter arrives-had pancreas and kidney transplant last year and has been slurring his words-stroke risk?-Jen follows up with this patient's status by inquiring whether the ER doc wants to see the patient in a trauma bed due to stroke risk and the fact that no other beds are available-when told that the doc does not want to do that, Lin calls Jennifer to tell her to document this

Young mixed race man with dislocated shoulder--eventually leaves when it pops back into place saying he will go to a clinic-Lin says, "I wish more people would realize that, that they aren't having an 'emergency'"

Lin keeps the visual field clear and appears to be able to do 10 things at once, complain about her sunburn, talk about her pregnancy and tomorrow's ultrasound, arrange beepers, hand labels to Ingrod, keep everything going Tells me she has been doing triage for 5 years, some of that time at another hospital, says it takes experience, and ability to not get flustered, wishes that she had a "stone face" so that her emotions were not so visible-responds with some frustration at a van driver who says he is looking for a pregnant patient, and an incoming patient who stubs out her cigarette outside the door, says, "this is a nonsmoking campus!" - patient crying, accompanied by man, chief complaint

## Appendix F: Continued

is vaginal bleeding, on phone with someone, maybe talking about having been seen or turned away at another clinic and now experiencing bleeding

Woman with Australian accent and her husband check in -woman says they are in Town b/c she is scheduled to have parathyroid surgery tomorrow but is experiencing sharp pains in her kidneys

Man arrives by EMS but sent to Pivot in a wheelchair, 50s?, sent from adult rehab facility

11: 12 am      Lin says, "that was a pretty crazy little rush," calls the COM desk and says, "put the patients back in the order I gave you" wants the possible stroke risk gentleman to be seen next, or if not next, sent to the Chest Pain pod at 11:30 so he will be there when the doc arrives at noon-wants him to be in the 3 hour TPA window

Youngish Hispanic couple, woman in obvious pain, Ingrid speaks Spanish to them, appears that they were there yesterday and the woman's gallbladder pain is much worse today

Lin tells me that the COM desk is more complicated even though there are less people around-have EMS pager, have to find someone to take report, have to answer calls from the lab looking for test results, have to respond to trauma pager, have to work through unresolved issues log

Stacy/tech complains about patient she took to the back being a jerk, says wanted oxygen but when she tested his pulse ox it was 100%--called the ER doc at patient's request who said of course the patient did not need O2

## Appendix F: Continued

Lin sends 20 yo old large man to PEDs accompanied by his mom and younger sister, much happiness that he went to Peds with his abdominal pain

40 yo Afr Am man sent to ED by his attorney after a car accident, not immediately after Jen says that Feb-April is the busiest time-seasonal illnesses + snowbirds

68 yo old woman, Spanish speaking, has pain around her heart-sent to sub triage for EKG

Patient Observations Dated: 6/13/11 (5PM-9PM)

Conducted Franklin's interview – observed some of the intricacies of managing the comm desk – often the traffic cop (comm desk) has to manage the personalities of the pivot desk and sub triage area – c/o is often the variance in quality of triage professionals – claim is that there is quite a variance in terms of “experience”

Continue to observe if there is any sort of tension between paramedics and nurses – it appears that some of the paramedics think they are more competent when it comes to sorting pts

Patient Observations Dated: 6/15/11 (6PM-830PM)

Conducted Harry's interview – it appears that there is some concern among staff regarding Press Ganey scores in terms of pt. subjectivity – some nurses feel the inventory adds extra stress on them, and turns the triage experience into a “customer service” exchange –

Patient Observations Dated: 6/25/11 (8PM-12AM)

Reviewed with Roberta the overall framework in terms of facilities and protocols for MH and substance abuse pts.

## Appendix F: Continued

### Discharge Protocols

- DATC (drug alcohol treatment center)
- ACTS (adult community treatment service)

Marchman Act (when pt. is a danger to self – will not get them treatment – due to substance abuse)

Baker Act (MH pt.)

Exparte (prison/jail pt. – for substance abuse sent to this Southeastern Hospital – temporary holding facility)

\*\* This Southeastern Hospitals' customer service model, built on Disney's platform

Patient Observations Dated: 8/30/11 (5PM-8PM)

Georgia's interview – seems to be a tension among “many” of African American staff regarding TX of Sickle Cell pts. in terms of the following:

- Wait times
- Understanding the pain levels
- Overall respect

\*Dr. Foster (tends to treat majority of these pts.)

Additionally, beginning to see based of discussions with many of AA staff that they don't believe they have the same opportunities as others – seem to think that they often have to come to the defense of many of the AA pts. in terms of treatment level – get the sense they feel that cultural sensitivity/diversity training might be useful at this Southeastern Hospital among staff

## **Appendix F: Continued**

Patient Observations Dated: 8/31/11 (6AM-930AM)

Approached by Melania (triage nurse) about some of our study observations – she asked what we thought about the exchange between triage and trauma – claimed she was very interested in how the “study evolves from triage to trauma.”

Patient Observations Dated: 8/31/11 (5PM-730PM)

In conversation, Roberta (charge triage nurse) claimed that ED attempted a new approach – where pts. were triaged and then immediately seen by mid-level provider where orders were written, paramedics would conduct blood draws – all conducted in the sub triage area – Roberta claimed this was instituted in hopes of localizing and maximizing initial encounter with pts. – both Roberta and staff claimed that it ended up being “one big cluster.” They claimed that the sub triage area became incredibly cluttered, which resulted in “the (R) hand not knowing what the (L) hand was doing.” In my estimation, these results were not surprising based on the size of the sub triage area and the busyness of sub triage at this Southeastern Hospital.

Patient Observations Dated: 9/8/11 (6AM-8AM)

This Southeastern Hospital is moving from Wellsoft, Precise, & Invision systems to the EPIC (developed by a Wisconsin firm) platform – there seems to be some ambivalence about new system, but it seems that new system will fully integrate entire hospital. Not able to get any interviews today – claimed they had a hectic night – EPIC platform will be fully integrated within 25 days (universal platform) – the thought is that might aid in the communication with system in terms of finding beds throughout system

Patient Observations Dated: 9/8/11 (230PM-8PM)

## Appendix F: Continued

Conducted interview with LaRisa – interestingly, LaRisa felt that race does not seem to impact pt. care – only AA that made that claim – again spent some time observing pt. flow in lobby area – it seems that security personnel get involved in triage process in terms of sharing pt. presentations to pivot professional (they made provide the eyes for pivot due to structural barriers

Patient Observations Dated: 9/9/11 (6PM-10PM)

Overheard conversation between triage nurses – question that they were playing around with was - “what makes a good triage pt.? Here are some of the responses that I overheard:

- Well informed
- “Reasonable medical knowledge” – understanding of current/past medical Hx (history)
- Reliable historian (meds)

\*\*last two seem to be the same

Interviews with Mike/Tracy – Mike seems to think that “frequent flyer” pts. are challenging, and quality of care might be impacted by tag – Tracy, interestingly shared of recorder that this Southeastern Hospital may benefit from some sort of cultural sensitivity training

Patient Observations Dated: 9/16/11 (4PM-10PM)

Pivot desk now has monitors observing entire lobby area – this was implemented due to the blind spots located throughout lobby area – it appears that some pts. seem aware that

## **Appendix F: Continued**

they are being monitored – this is communicated by staff in terms of serving the best medical interest of the pt. – staff Jennifer/Roberta seem very excited about the close of our study – seem to be interested with ideas as such:

- How they can improve the pt. experience
- How they can become more efficient in terms of pt. and triage professional exchange
- How the communicative exchanges could improve between comm desk, pivot desk and sub triage
- What our thoughts regarding mid level provider
- Provide some insight regarding improving exchanges between triage professional (nurse) and doc