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Managing Multiple Goals in Opioid Prescription Communication: Perspectives from Trauma Physicians

Elizabeth T. Adams

University of Kentucky, elizabethadams@uky.edu

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Elizabeth T. Adams, Student

Dr. Elisia Cohen, Major Professor

Dr. Bobi Ivanov, Director of Graduate Studies

MANAGING MULTIPLE GOALS IN OPIOID PRESCRIPTION COMMUNICATION:
PERSPECTIVES FROM TRAUMA PHYSICIANS

THESIS

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in the College of Communication and Information at the University of Kentucky.

By

Elizabeth Troutman Adams

Director: Dr. Elisia Cohen, Professor of Communication

Lexington, Kentucky

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ABSTRACT OF THESIS

MANAGING MULTIPLE GOALS IN OPIOID PRESCRIPTION COMMUNICATION: PERSPECTIVES FROM TRAUMA PHYSICIANS

Prescription opioids and heroin account for more than half of all drug overdose fatalities, claiming an estimated 91 American lives every day (Rudd, Seth, David, & Scholl, 2016). The ongoing opioid epidemic represents a tremendous burden to the national economy and healthcare system (Rudd, Aleshire, Zibbell, & Gladden, 2016). In 2016, the Centers for Disease Control and Prevention and the Office of National Drug Control Policy proposed action to train healthcare providers to judiciously prescribe opioids, which are also indispensable pharmacologic resources for treating acute pain resulting from a traumatic injury or surgery. This study examines the prescribing practices of trauma surgeons who enter patient consultations with multiple and conflicting goals respective to their roles as a healers of the suffering, regulators of illicit substances, members of a medical system working to contain an opioid epidemic, and moral beings with a distinct set of experiences and practice philosophies. Semi-structured interviews with 17 trauma and surgical residents and fellows at a southeastern medical center generated descriptive data regarding prescribing practices and patient communication. Guided by the multiple goals framework, the study produced three themes depicting the entanglement of identity, task, and relational goals during opioid-prescribing conversations between surgeons and their patients.

KEYWORDS: opioids, patient-provider communication, surgeons, prescriptions, multiple goals

Elizabeth Troutman Adams

April 12, 2017

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By

Elizabeth Troutman Adams

Elisia Cohen

Director of Thesis

Bob Ivanov

Director of Graduate Studies

April 12, 2017

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CHAPTER ONE: INTRODUCTION

Since the turn of the century, substance abuse and lethal drug overdose have escalated to epidemic proportions across the United States, leading to a complex public health crisis. In 2014, drug overdose surpassed car crashes as the leading cause of accidental death, marking a historic peak for drug-related mortality (Frieden, 2016). Opioids, a category of analgesic therapies that block pain receptors in the brain, cause six out of 10 drug overdose deaths (Rudd, Seth, David, & Scholl, 2016). Every day, 91 people lose their lives to an opioid overdose (Rudd, Seth, David, & Scholl, 2016). Opioid-related overdose mortality increased by more than 200% from 2000 to 2014 (Rudd, Aleshire, Zibbell, & Gladden, 2016), and prescription opioids or heroin were attributed to more than 33,000 overdose deaths in 2015 (Rudd, Seth, David, & Scholl, 2016). Results from the National Survey on Drug Use and Health indicated 22.6 million Americans age 12 and older, or 8.9% of the population, were current or past users of illicit drugs (Manchikanti, Helm, Fellows, Janata, Pampati, Grider, & Boswell, 2012). In a 2016 report, the Centers for Disease Control and Prevention (CDC) estimated the cost of prescription opioid abuse totaled \$78.5 billion per year, representing a tremendous burden for the nation's health system (Florence, Zhou, Chao, Luo, & Xu, 2016). Clearly, the scourge of prescription drug overdose in America requires a close examination of the medical system and the decision-making processes of prescribers who put lethal substances into the hand of patients.

Widespread opioid abuse presents an ethical dilemma for all physicians, including those who prescribe opioids to alleviate malignant forms of pain. In trauma and surgical care, pain emanating from an operation or traumatic event is imminent and unavoidable.

Opioid analgesics are the most effective therapies for managing high-intensity pain and are vital to the postoperative recovery process. Two decades ago, in response to a health policy report estimating untreated post-surgical pain in half of all patients (U.S. Agency for Health Policy Research, 1992) as well as a humanitarian mandate from the Institutes of Medicine (IOM, 2011), healthcare practitioners transitioned to a period of liberalization in prescription opioid pain management. Medical prescriptions for opioid medication have quadrupled since 1999, putting more than 259 million prescriptions into the hands of patients — enough to fill a prescription for every person in the nation (Frieden, 2016).

As gatekeepers to opioid pharmaceuticals, trauma surgeons must exercise vigilance in their prescribing practices, monitoring risk factors for potential substance abuse, misuse, or diversion during surgical recovery and outpatient follow-up care. While making judicious prescribing decisions and limiting the amount of opioids dispensed to patients, surgeons also uphold a pledge of beneficence in treating high-intensity pain with effective analgesic therapies (Peitzman, Schwab, Yealy, & Donald, 2012). The physician's responsibility to society and commitment to beneficence is joined by a third objective in patient-provider interactions: shared decision-making (Andersson, et al., 2010). In modern medical practice, physicians share treatment decisions with patients, respecting individual values while determining medical treatment course compatible with the patient's preferences (Andersson, et al., 2010; Epstein & Street, 2011). The acute care physician's commitment to patient-centeredness converges with a societal imperative to safeguard opioids from misuse, abuse, and diversion converges, resulting in a conversational impasse wherein physicians must prioritize and manage goals respective to their traditional and emerging obligations.

Therefore, in communicating to patients about the use of opioids for pain management, trauma surgeons pursue multiple and competing goals related to their position as a pharmaceutical authority, a beneficent healer, and an adherent to patient-centered care, all while attending to the predominant medical and pain-control needs of the patient. The multiple goals framework (Clark & Delia, 1979) has guided health communication scholars in describing how healthcare providers navigate communicative goal achievement during clinical communication and reach particular treatment decisions with their patients. The principles underlying this framework will guide this study's qualitative examination of goal management and communication challenges during opioid-prescribing clinical consultations specific to the trauma physician and surgeon.

Using multiple goals theory (Clark & Delia, 1979; Wilson, 2002), this study provides a theoretical explication of how acute care surgeons manage multiple and conflicting goals when deliberating with patients about the use of opioids for imminent and inevitable pain. While previous scholarship has addressed opioid-prescribing clinical conversations in the context of chronic pain management in primary care settings (Matthias, Krebs, Collins, Bergman, Coffing, & Bair, 2013), this study attends to the acute care setting where opioid analgesics are widely accepted as the gold standard for treating pain resulting from invasive surgery or traumatic injury. An examination of how surgeons and trauma physicians discuss opioid risks and benefits during pain management conversations with patients will provide a foundation for developing strategies to avoid practice pitfalls, such as overprescribing or excluding the patient from pain management decision-making. This work also identifies distinct communicative challenges related to the negotiation and management of prescription opioids arising in surgery and trauma care

settings. With a national interest in reducing the prevalence of opioids in society, patient-provider encounters are opportune settings for preventing misuse behaviors, educating patients about appropriate applications for opioids, and managing patient expectations regarding the use of analgesic therapies to treat high-intensity pain. The imminent study aims to depict trauma surgeons' distinctive communication challenges in demonstrating compassion, honoring patient-centered communication, and safeguarding deadly opioids during interactions resulting in a prescribing decision. This study contributes to health communication scholarship by presenting a descriptive account of communicative goals in acute care prescribing conversations, providing a foundation of knowledge for troubleshooting tensions, contradictions, and incompatible objectives that complicate communication and lead to overprescribing trends that fuel the ongoing opioid epidemic.

CHAPTER TWO: LITERATURE REVIEW

The Fifth Vital Sign

While improperly used prescription opioids have contributed to a national drug epidemic, these medications serve legitimate and imperative functions for managing pain in surgery and trauma care environments (Serpell, 2008). Surgeons and trauma physicians are trained to dispense powerful opioid analgesics, such as morphine, fentanyl, and hydrocodone, as a means to reduce inevitable pain and suffering caused by a traumatic event or following a surgical procedure. Authorities in trauma care and acute surgery consider opioid analgesics the cornerstone of pain management as these pharmacologic agents provide rapid physiological responses appropriate for treating severe injury or postoperative pain (Peitzman, Schwab, & Yealy, 2015). Opioids vary in degrees of potency and effect and are intended for short-term use, often requiring a titration timeline post-surgery or trauma incident.

However, treating post-surgical pain isn't a formulaic process for surgeons. Pain is a subjective experience contingent on multiple complex factors, including the patient's psychological state, past medication use and opioid tolerance, and physiological responses in the brain (Morley, 2008). Because no valid measurement tool or scale can quantify pain objectively, communication is a primary source of information about the patient's pain experience available to the physician and medical team (Tan & Cyna, 2013). Therefore, communication about pain control and prescription opioids allows physicians to gauge a patient's intensity of pain and manage pain-control expectations during the recovery phase. In surgery and trauma care, physicians are urged to tailor a pain treatment plan tailored to the "needs, desires, and circumstances of individuals" (Gordon et al., 2005, p.

1573), and provide evidence-based information that enables patients to make informed decisions regarding their pain treatment. Unresolved postsurgical pain is associated with higher medical costs and further distress to the patient (IOM, 2011), which was the impetus that drove healthcare industry toward a pro-treatment stance on acute care pain management two decades ago.

During the 1990s, the surgical field shifted toward an emphasis on pain control, with national recommendations urging surgeons to talk to patients about pain levels and guarantee an analgesic as part of their recovery process (U.S. Department for Health and Human Services, 1992). Guidelines for acute pain management dismissed the notion that patients could develop an addiction disorder as a result of receiving an opioid for postsurgical pain management. The American Pain Society and the Joint Commission on Healthcare Organizations designated pain the “Fifth Vital Sign,” setting the stage for an era of pain management prioritization in which physicians turned to opioid therapies as the first-choice analgesics for pain (Walid, Donahue, Darmorhay, Hyer, & Robinson, 2008). This preoccupation with pain management was reinforced by physician Ronald Melzack’s influential *Scientific American* article, “The Tragedy of Needless Pain” (1990), which contended:

It was once unthinkable to give narcotics indefinitely to patients who were not terminally ill. Yet studies designed to examine addiction specifically in such patients are beginning to show that for them, as for the standard candidates for narcotics therapy, these drugs can be helpful without producing addiction.

(Melzack, 1990, p. 33)

Contrary to these original assertions, more recent studies have presented evidence that physicians' liberal opioid-prescribing practices contributed to the rise opioid and heroin deaths after the turn of the century (Hill, Mackanon, Stucke, & Barth, 2016; Ling, Mooney, & Hillhouse, 2011). Opioid-related overdose increased threefold from 2000 to 2014, and during the same time period, opioid prescription sales quadrupled (Rudd, Aleshire, Zibbell, & Gladden, 2016; Paulozzi, Jones, Mack, & Rudd, 2011). The number of prescriptions for opioids such as hydrocodone and oxycodone have risen from 76 million in 1991 to nearly 207 million in 2013 (Volkow, 2014). Of the 5 million Americans who have reported abusing opioids, about 20% were the recipients of a legitimate prescription and 71% obtained a legitimate prescription through means of diversion (Hill, Mackannon, Stucke, & Barth, 2016). Surgeons are the second-highest prescribers of prescription opioids, dispensing at a rate of 37% (Daubresse et al., 2013). Emergency room providers are the most frequent prescribers in terms of new prescriptions dispensed (Morris & Mir, 2016).

The evidence of opioid overprescribing is clear: while opioid prescriptions increased by 10% in discharged emergency room patients between 2001 and 2010, there were no significant increases in pain-related emergency room complaints during the same time period (Morris & Mir, 2016). Another study reported that patients prescribed an opioid for a minor surgery were 44% more likely to become long-term users compared to those who were not prescribed opioids for pain (Alam, Gomes, Zheng, Mamdani, Juurlink, & Bell, 2012). These prescribing trends underscore the responsibility of acute care providers and surgeons in controlling the amount of opioids dispensed into the hands of patients and released into society.

After a liberalization of opioid prescriptions for pain management in the 1990s and early 2000s, widespread opioid abuse and opioid overdose mortality prompted another paradigm shift in opioid-prescribing practices in the medical profession. In recent years, health policymakers and agencies have directed attention toward efforts to contain the opioid epidemic by advising discretion in prescribing practices, integrating physician education on alternative paths to pain management, and revising guidelines targeting healthcare professionals with the authority to prescribe (Volkow, 2014). In 2012, the American Society of Anesthesiology recommended acute care physicians minimize the amount of opioids prescribed and increase their reliance on multimodal approaches incorporating non-opioid analgesics (Gandhi, Baratta, Heitz, Schwenke, Vaghari, & Viscusi, 2012). In 2016, the White House Office of National Drug Control Policy outlined key measures to reduce the burden of opioid and heroin addiction, proposing legislation and action to train prescribers on the proper and safe dissemination of opioids (Office of National Drug Control Policy, 2016).

In 2016, the CDC released opioid-prescribing guidelines to specify the prescriber's role and responsibility in preventing opioid misuse, abuse, and addiction, with instructions for physicians to minimize the dosage to the lowest amount effective for treating pain; to discontinue opioids unless benefits of reducing pain and improving functionality outweigh the risks; and to integrate additional procedures to monitor patient risk factors and behaviors indicative of opioid abuse, misuse, or diversion (Dowell, Haegerich, & Chou, 2016). These guidelines advised specific communicative actions in the opioid-prescribing patient consultation, including engaging with patients in an assessment of the risks and benefits of using an opioid to relieve pain. Our study seeks to illuminate patient-provider

conversations in the context of trauma care and surgery where opioid prescribing is often necessary for treating high-intensity pain symptoms. While clinical communication is integral for managing pain-control expectations and outcomes, it is also an opportunity to incorporate the patient's preferences in the treatment program, thereby honoring a standard of patient-centered care.

Patient-centered Communication

Coinciding with a heightened sensitivity to pain management during the 1990s, medical practitioners turned away from a paternalistic and disease-centered model of patient communication, adopting a deliberative model that prioritized the patient's individual preferences in medical decision-making (Emanuel & Richter, 1994). Justified on moral and humanistic grounds, patient-centeredness refers to behaviors in medical practice that honor the wishes, preferences, values, cultural norms, and belief systems of patients, with the ideal of agreeing on a medical treatment course formulated on such factors as well as the physician's medical expertise (Epstein & Street, 2011). Rather than relaying medical information and advising an evidence-based intervention, the physician acts as a “teacher or a friend” (Emanuel & Emanuel, 1992, p. 2222), thus empowering patients and families to participate in clinical decision-making. The physician assigns utmost respect to patient autonomy while presenting treatment plan consistent with relevant medical literature and past experience. Patient-centered care has shown to increase the likelihood of a patient or family member participating in the medical recommendation presented by their physician (Barry & Edgman-Levitan, 2012). Epstein, Fiscella, Lesser, and Stange (2010) stated that patient-centeredness involves sharing information, sharing deliberation, and sharing a mind, or reaching a consensus regarding

the proper course of treatment. In patient-centered communication, the overarching goal of an interaction is to improve service quality by fostering healing relationships.

Previous scholarship has supported an association between patient-centered communication and measurable health outcomes, such as higher satisfaction with care, increased utilization of healthcare resources, reduced symptom severity, and fewer healthcare expenditures (Little et al., 2001). In a study of surgical care, Pereira, Figueiredo-Braga, and Carvalho (2016) found a patient-centered communication intervention reduced preoperative anxiety, expedited the healing process, and improved patient satisfaction in patients undergoing ambulatory surgery. Another study indicated patients who perceived they received patient-centered communication were more likely to find common ground with their physician (Stewart, Brown, Donner, McWhinney, Oates, Weston, & Jordan, 2000).

However, scholars have contested the value of patient-centeredness in medical care, citing a lack of methodological rigor in measuring and conceptualizing patient-centeredness and wide variation in results supporting the value of patient-centeredness across populations, demographic features, and treatment contexts. Acknowledging the inherent value of patient-centered care, Weiner et al. (2013) ascertained that patient-centered communication must conclude with actions that incorporate the patient's needs and circumstances to have any worthwhile effect on outcomes. Bertakis and Azari (2011) argued several contextual factors, including gender discordance, might interfere with patient-centered communication during clinical interactions. Finding primary physicians tended to focus on opioid misuse and aberrant behaviors in patient interactions, Banta-Green et al. (2010) proposed a conversational framework to guide patient-centered

dialogue about difficulties with prescriptions drugs expressed by patients. In an examination of surgical care, Andersson et al. (2010) identified a communication chasm as an obstacle to obtaining patient consent for treatment, which the authors attributed to a deterioration of trust between patients and surgeons.

Adhering to patient-centeredness might also conflict with the physician's societal imperative to safeguard patients and the public from adverse consequences associated with prescribing opioids. A recent study detected a trend in overprescribing for postoperative pain, reporting 70% of opioids prescribed for five of the most common general surgeries were never consumed by patients and a wide variation of scripts prescribed for similar procedures by acute care physicians (Hill, Macknon, Stucke, & Barth, 2016). Ironically, the authors reported physicians' perceptions of adhering to patient-centeredness as a common reason for administering variations of opioid prescriptions for similar surgeries. Emergency rooms were cited as having the highest amount of variation in opioid prescriptions (Volkow, 2011), and while this variation was attributed to customization of care to meet the individual's needs and preferences, a lack of uniformity, structure, and consistency in post-surgical prescribing has resulted in upward prescribing trends. Because modern trauma surgeons inherited the moral obligation of amending prescribing practices that originally contributed to the opioid epidemic, they are forced to negotiate and manage regulatory goals, which are antithetical to a patient-centered communication model emphasizing collaboration and unity.

The Multiple Goals Framework

Maintaining that all forms of communication are purposive and goal-directed, Clark and Delia (1979) concluded that individuals attempt to accomplish relational,

identity, and task goals, or “objectives explicitly or implicitly present for overt or tacit negotiation in every communicative transaction” (p. 200). Goals are cognitive representations of desired events (Wilson, 2002), and the multiple goals approach attempts to explain how the presence of more than one communicative goal influences social behavior, acknowledging that the outcome of an interaction will be determined by the context of communication, message complexity, individual motives, and goal salience (Donovan-Kicken & Caughlin, 2010). In addition, goals accomplished through communication are assigned to three categories: performing a task, affirming an identity, and developing a desired relationship (Scott & Caughlin, 2014). An acute or trauma care provider might communicate to evaluate pain symptoms, elicit input from the patient or a social supporter, educate the patient about a procedure, or outline post-surgery expectations, which are tasks completed in clinical consultation. In the same instance, the physician might pursue an identity goal by drawing boundaries for opioid prescription levels and providing evidence-based information regarding the treatment recommendation, affirming their status as a medical authority and opioid regulator. Further, the physician might use the communicative exchange to comfort the patient, provide a hopeful outlook, or establish trust in an effort to strengthen the therapeutic bond. Goals related to the physician’s role as medical provider, prescription opioid regulator, and patient-centered advocate present multiple and conflicting goals, which are conflated during patient-provider discourse. The quality of communication, measured as the ability to achieve multiple goals in one instance without sacrificing the achievement of another goal, is therefore contingent on the communication skills of the healthcare provider (Caughlin, 2010).

Health communication scholars have applied the multiple goals framework to various contexts in healthcare, including disclosures of health status (Caughlin, Bute, Donovan-Kicken, Kosenko, Ramey, & Brashers, 2009), palliative care teamwork (Wittenberg-Lyles, 2005), and end-of-life decision-making (Scott & Caughlin, 2014). Smith-Dupre and Beck (1996) extended the application of multiple goals to the patient-provider context, detecting goal work communication patterns in excerpts of clinical discourse between a family practice physician and her patients. The authors found patterns of goal-oriented communication that enabled the physician to elicit disclosures and engage patients in their treatment options. In an assessment of physicians' communicative behaviors in real practice situations, Veldhuijzen, Mogendorff, Ram, van der Weijden, Elwyn, and van der Vleuten (2013) reported that consultation goals, including diagnosis, treatment, meeting patient's preferences, and building trust, in addition to generic goals, such as communication that served to reinforce a conceptualization of what a doctor should communicate during an interaction with a patient, determined communicative actions during patient discourse. The authors noted that other factors, such as assumptions about patients, the amount of time available, and assumptions about medical status, influenced patient-provider communication and the achievement of communicative goals. The current study is an extension of the multiple goals framework to understand how goal pursuit unfolds during communication between acute care physicians and their patients.

In a study examining persuasive communication, O'Keefe and Shepherd (1987) observed strategies enacted by persuaders to manage multiple conflicting goals in discourse, including forging ahead with no effort to attend to the secondary goal, pursuing a primary goal while addressing a secondary goals with appending statements, and

crafting contextualized remarks to insinuate to the message receiver that the primary and secondary goals are not at odds. Situational complexity occurs when an interaction comprises a number of competing goals and obstacles to goal achievement, and situations overwhelmed with competing goals and obstacles will result in more message variation during the transaction (Tracy, 1992). Further expounding this theoretical framework, Dillard, Segrin, and Franklin (1989) postulated that individuals set a primary task goal of instigating influence during an interaction, but pursue secondary goals related to resources, identity, interaction, relationships, and arousal as the discourse allows. Their perspective suggests that a single overarching goal will dominate the discourse, forcing the communicator to subvert secondary goals in pursuit of the primary communicative goal. In clinical communication, an acute care physician manages and negotiates task, identity, and relational goals but must determine which goal supersedes all other goals in opioid-prescribing discourse and whether secondary goals are attainable in the context of pain management conversations with patients in severe pain.

Given that a single message seldom achieves all the goals brought into a situation, O'Keefe (2013) rationalized that communicators will devise a diversity of message constructions in an attempt to balance the competing claims and demands of multiple goals. Scott and Caughlin (2012) found the pursuit of one goal can constrain or prevent the achievement of another equitable goal during the course of interaction, and an interaction becomes more difficult for the communicator to navigate when goals are complex, variant, and inconsistent. In response to this quandary, a physician engaging in a clinical interaction might choose to prioritize one imposition, or goal, over the other. For instance, a trauma physician managing a patient's recovery might choose to prioritize the

goal of facilitating comfort by accommodating his or her request to refill or increase the dosage of an opioid medication, even though this decision undermines the communicative goal of exercising restraint and vigilance in prescribing practices and limiting opioid prescriptions. The decision might also contradict the physician's inclination and intuition to minimize the risk of harm, which could only be attained by denying the patient's request to increase or sustain an improper opioid dosage level. Further complicating the matter, the physician's regulatory goal of reducing or limiting the patient's access to opioids might inhibit other communicative goals during the medical consultation, such as the organizational goal of patient satisfaction or comfort. Encapsulating the physician's competing tasks of regulating pharmaceuticals and achieving multiple task-oriented, relational, and identity goals during the opioid-prescribing consultation, Ives et al. (2006) stated:

Generalists are faced with the dilemma of balancing the pain-relieving properties of opioids in selected patients with chronic pain against the reality that some patients may misuse and divert these medications. In effect, they are balancing one public health priority – the relief of suffering from pain – against another, the mitigation of substance misuse. (“Background,” para. 2)

While healthcare providers, especially those who specialize in acute care and surgery, are obligated to reduce the presence of human suffering through the delivery of efficacious medical treatment, they assume the additional regulatory role of protecting patients from adverse outcomes associated with opioid exposure, including behaviors of misuse, abuse, and diversion (Kenny, 2004; Matthias, 2013; Ives et al., 2006). In discussing whether to initiate, continue, or increase an opioid prescription with a patient

expressing symptoms of acute pain during consultation, physicians must discursively manage multiple and conflicting goals respective to their identities as a healer of the sick and suffering, regulators of litigious substances, and moral individuals with a discrete set of experiences, preferences, biases, and cultural norms influencing their professional conduct. Identifying the physician's discursive goals in perioperative and postoperative consultation and understanding how these goals interplay, contradict, and complicate patient-centeredness during the encounter will establish a basis of knowledge for troubleshooting problems of miscommunication, which are prevalent in such encounters (Matthias et al., 2010). We seek to inform the design of straightforward messages to communicate risks of opioid abuse and misuse to vulnerable patients, and equipping and empowering physicians to overcome these complex communication situations to deliver appropriate yet compassionate medical care.

Unanswered Research Questions from a Multiple Goals Perspective

Multiple and conflicting goals in the opioid-prescribing consultation might hinder the physician's ability to engage in the deliberative model of shared-decision making, the preferred model of patient-physician conduct in an age of patient-centered care (Milenson & Marci, 2012). Several studies have postulated that the interplay of multiple and conflicting goals in patient-provider discourse regarding opioid prescriptions stifles the shared decision-making model. For example, Kenny's (2004) thematic analysis of dyadic interviews between doctors and patients revealed four points of tension during the opioid-prescribing clinical consultation. Kenny suggested that patient-provider dyads enter the medical encounter with conflicting agendas; patients attempt to convince doctors of the legitimacy of their pain; both patients and providers struggle to establish legitimacy in

their testimonies and diagnoses; and patients and providers de-individuate and type-cast one another to de-legitimize their constitutive roles in the decision-making process. Further, Matthias et al. (2010) identified factors in the clinical interaction that obstruct shared decision-making, including the provider's suspicion of patient divergence, the patient's pursuit of a disability status, the provider's doubting the credibility of the patient's testimony, and strained and typically emotional interactions between both social actors as contributing factors negating the deliberative model of care in the clinical consultation. Evidence of interpersonal tension and conflicting communicative goals in these medical contexts suggests that similar tensions may arise in opioid-prescribing conversations in the acute care context.

The question central to this research is, given that surgeons strive to attain multiple and competing communicative goals in the opioid-prescribing consultation, how do they navigate a complex web of interacting and conflicting goals during patient interactions? A descriptive portrayal of the communicative strategies and social cues enacted by physicians in clinical discourse will produce knowledge for constructing effective schematics and communicative strategies to inform patient-provider communication in the opioid-prescribing conversation. Guided by multiple goals theory, the current study posits two research questions related to physicians' strategies for managing multiple communication goals:

R1: What are primary task, identity, and relationship goals trauma surgeons attempt to accomplish during the opioid-prescribing consultation?

R2: How do acute care physicians manage multiple and conflicting communicative goals during patient consultations centered on opioid prescriptions?

CHAPTER THREE: METHOD

Guided by two research questions, the research study produced a descriptive account of how trauma physicians and surgeons navigate opioid-prescribing discourse with patients through an application of the multiple goals framework. In the interest of generating a naturalistic representation of a specific scene of interaction between physician and patient in the context of the opioid-prescribing conversation, the investigator adopted the interpretive paradigm to guide observations and analysis of patient-provider discourse. Denzin and Lincoln (2000) argued qualitative researchers practice interpretive science as “bricoleurs” (p. 5), employing whatever strategies, methods, and empirical tools available to construct meaning and significance from observable phenomena. The interpretive researcher locates meaning and significance in the trivial, perfunctory, and problematic moments of the lived world by piecing together “slices of reality,” and clipping those moments together to create “psychological and emotional unity” (Denzin & Lincoln, p. 7, 2000).

The use of qualitative interviews allows the researcher access the worldviews of physicians by accumulating knowledge through their stories, accounts, and explanations of decision-making practices in the opioid-prescribing clinical consultation (Lindlof & Taylor, 2011), thus eliciting “rich thick description” suitable for qualitative analysis (Corbin & Strauss, 2008, p. 342). The proposed method gave the investigator the advantage of co-creating the lived experience of the opioid-prescribing conversation with trauma physicians and surgeons, affording the researcher access and insight into private and protected communication occurring between patients and their healthcare providers. The chosen methodology also allowed the researcher to render descriptive portrayals of

the physician's accounts of communication in a specific social context of the opioid-prescribing consultation, thereby allowing conceptual and thematic development consistent with the research questions founded upon the multiple goals framework (Corbin & Strauss, 2008).

Procedures

Upon obtaining approval from the Institutional Review Board, the principal investigator (PI) collected data for analysis through semi-structured interviews with residents and fellows working in trauma care and surgery at a southeastern academic medical center. The Level I Trauma facility serves as a regional hub for tertiary care and complex surgery. Participants were recruited through purposive and snowball sampling methods to retrieve data from a subset of physicians with a specific set of skills and experiences in trauma care and surgery. After obtaining a list of institutional email addresses provided by the medical center's Department of Surgery, the PI contacted surgical fellows and medical residents through tailored email messages, offering the opportunity to interview for 30 to 45 minutes about opioid-prescribing communication and practices. All participants were licensed to prescribe opioids or prescribe under a superior's Drug Enforcement Agency license, and each participant detailed experiences exercising this privilege in clinical consultation. Subsequently, the PI received referrals for additional interviews through our direct contact with participants, a method consistent with snowball sampling. With permission from the chair of the department, interviews were scheduled at public and private non-clinical locations within the medical center. A total of 17 interviews were conducted during the collection phase. Participating physicians reported a mean 3.7 years of medical practice experience, and 13 were residents and four

were surgical fellows. Nine male participants and eight female participants gave interviews, and the mean age of participants was 31.

At the beginning of each interview session, the participant completed a brief demographic questionnaire, which served to record information regarding age, gender, position, and number of years in post-degree medical practice. The investigator thanked participants for their time, read a scripted introduction explaining the purpose of the study, and offered to answer any questions related to the study or in regard to how data will be protected, stored, and analyzed throughout the research process. The interview was guided by a semi-structured interview protocol (Appendix A) designed to elicit participant reflection on clinical conversations and generate descriptive data vital to answering the two research questions. The participants received a \$25 Starbucks gift card in compensation for their time and were guaranteed the de-identification of data to honor confidentiality. During data analysis, the PI assigned each participant a random gender-specific name selected from the National Weather Service's Hurricane name list for 2017.

The PI showed methodological flexibility in encouraging participants to engage in deeper narrative storytelling as time permitted. The PI recorded impressions, points of emphasis, tone, and follow-up questions as respondents answered open-ended questions, and referenced these notes during analysis to demonstrate methodical rigor. An in-person interview was selected in favor of phone interviews to establish rapport, observe body language and voice tone, and facilitate candor and trust with the respondent during data collection (Lindlof & Taylor, 2011). Participants were asked to expound on ideas and extemporaneous questions relevant to the research context were incorporated as appropriate to the flow of the conversation. After transcribing each interview, the first

author recorded transcripts, summarized impressions, and identified preliminary themes consistent with the multiple goals framework.

Qualitative Descriptive Analysis

In the interest of achieving a rich interpretation of a contextualized communicative phenomenon, the investigator used a qualitative descriptive methodology, which is an inductive process of generating a descriptive portrayal of the data organized in a way that best fits the data (Colorafi & Evans, 2016). According to Sandelowski (2000), a qualitative descriptive analysis is bound to the context in which the event of interest is occurring, as well as the interpretive lens of the observer. Qualitative descriptive analysis is a method for presenting a comprehensive portrayal of an event or circumstance than available through quantitative description, and therefore, aptly suited to the directives of our research.

During data analysis, the primary investigator conducted a generative stage of open coding to derive preliminary categories from the data, following Corbin and Strauss' (2008) recommendations to reduce the data to manageable pieces, reflect upon the data, and conceptualize the data based on the researcher's interpretations of its meaning and significance. The PI engaged in an iterative process characterized by recollecting the interviews, which involved listening to interview recordings, reflecting on notes taken during interviews, and thoroughly reading transcripts. The iterative process leads to conjecturing, returning to the data, questioning the data, verifying findings, and defending findings. During a first round of coding, two investigators engaged in a thorough reading of the transcripts, deriving themes and organizing units of data, or codes, based on a priori themes delineated by the multiple goals framework: identity goals, task goals, and

relationship goals. The investigators examined the data for physician-reported instances and expressions of communicative goals designated within three categories of goal achievement. Identity goals were conceptualized as communication serving to reinforce an identity, status, position, or role in the healthcare setting; task goals were conceptualized as communication driven by the intent to accomplish a task related to the clinical care of the patient; and relationship goals were conceptualized as goals that serve to fortify or define the therapeutic alliance between the surgeon and the patient. Segments of text exemplifying each goal category within the sensitizing framework were recorded in a master outline, and the coders convened after the first round to deliberate and corroborate their major themes and categories. During this process, the coders responded to the first research question by interpreting specific identity, task, and relationship goals surgeons expressed by physicians within the context of pain management decision-making with their patients.

In the second round of coding, the investigators sought to answer the second research question by developing axial codes related to the intersections and tensions among various identity, task, and relationship goals during the opioid-prescribing consultation. Consistent with the constant-comparative process defined by Strauss and Corbin (2008), two coders organized codes in terms of properties and dimensions, fitting data together, comparing and contrasting segments of raw data, and linking raw data to a naturalistic interpretation. While in the first round of coding, the investigators approached coding of the data with an etic perspective, filtering segments data through the theoretical lens of the multiple goals framework, in the second round they employed an emic perspective by exercising sensitivity and reflexivity in allowing the participants to dictate

goal-conflict themes arising naturally in conversation during the interview process until each code was well-developed (Lindlof & Taylor, 2011). The coders identified three axial themes demonstrating instances when communicative goals were incongruent, or obstructed the achievement of an equally vital goal to the clinical experience, during interactions centered on opioid prescriptions. Demonstrating the same methodological rigor as the first coding round, the coders sorted in vivo text into three goal-conflict categories and convened to corroborate our findings. They then returned to the data, linking each axial code with raw segments until they reached theoretical saturation in constructing each of the three axial themes. These findings demonstrate intersections of communicative goals, providing a descriptive account of how multiple roles, tasks, priorities, commitments, identities, alliances, and obligations constrain the achievement of commensurate communicative goals during opioid-prescribing conversations. These complex intersections, which were labeled goal-conflict scenarios, result in problematic communication between surgeons and their patients.

CHAPTER FOUR: FINDINGS

The trauma surgeons articulated various identity, task, and relationship goals, which constrained, obstructed, and complicated the achievement of other communicative goals during pain management conversations. The coders organized the data into three central goal-conflict themes. First, casing a patient, or performing a surgeon's detective work to gather patient-sourced information, constrained and obstructed the surgeon's ability to accomplish other equivalent task goals, as well as relationship goals to facilitate trust and transparency in prescription decision-making. The second theme encapsulates a tension between communicative goals intended to assert expert authority and professional integrity and goals of engaging patients in a manner that resembled patient-centeredness and cultivated a human bond, which is foundational for constructive patient-provider relationships. These relational tensions manifested in an intersection of obligations to society and patient care. Surgeons either chose to emphasize beneficence, thus accommodating a patient's need for comfort, or vigilance, which prioritized a societal obligation to safeguard opioids from illicit uses. The final theme addresses how surgeons reconciled the art and the science of pain management, two dichotomous approaches to pain management decision-making, during opioid-prescribing conversations. Surgeons were obligated to make calculated, scientific-based decisions anchored in objective evidence while moderating their recommendation with subjective observations, interpreting patient's severity of pain, the patient's forthrightness, and the patient's motivations, while checking their judgments against biases toward the patient. The following descriptive findings elaborate upon each goal-conflict theme interpreted during

analysis and reveal distinctive barriers to achieving multiple identity, relationship, and task goals during the acute care opioid-prescribing consultation.

Detective Work in the Task of Opioid Prescribing

Similar to a detective's process of gathering clues and collecting evidence, surgeons engaged in clinical detective work, or interrogative information-gathering strategies during opioid-prescribing conversations. Detective work involved eliciting information from patients to develop a comprehensive understanding of the origins of their injury or problem, their pain tolerance level, their intent and personal goals, their forthrightness and honesty about opioids, and their past experiences with medication. Detective work was imperative in the clinical decision-making process, as gaining a fuller picture of the patient's distinctive circumstances prevented pitfalls in prescribing, such as under-prescribing or over-prescribing based on perceptions of risk and opioid abuse history. Surgeons indicated time limitations in building a case through the clues and cues they gathered during consultation. Subsequently, they were forced to perform multiple overlapping task goals in a short time period. Essential task goals they identified during consultation included conducting opioid use history assessment, assessing the patient's extent of opioid familiarity and perceptions, stratifying patients based on narcotic use history, estimating a baseline pain tolerance level, and filtering out cues in dialogue inferring the risk of aberrant behavior. All of their task goals conflicted and constrained the relationship goal of gaining patient-buy in, preserving trust, and saving face to uphold professional dignity and politeness.

Assessing opioid use history

Patient-provider conversations were opportunities for surgeons to trace the patient's opioid use history, fill in gaps of knowledge inaccessible through medical documentation, and understand the nuances of pain management related to the patient's lifestyle factors. Surgeons actively probed patients for information during opioid-prescribing conversations, which allowed them to factor all clues and cues into their information processing and arrive at a baseline pain level. The surgeon's assessment of a baseline pain level influenced the pain management program for the duration of care. In fact, failure to address the baseline pain was a strong predictor of complications in pain management. Surgeons extracted information from patient conversations, such as past medication use and experiences with surgery, to inform their baseline determination. This task also involved distinguishing surgery-induced pain from prior-existing chronic pain, which Dr. Vince described as a complex task of differentiation:

So I try to just get an idea of how we're doing as providers treating their wounds. Typically one way or another that sends me down the path of, well what do you take at home? And many times a patient will volunteer, well I take this medicine, this medicine, this medicine, four times a day and then I take three of these whenever I have this awful pain. You'll actually find that a lot of times in that line of questioning, if they have a primary, it's completely unrelated to any injury or surgery that we've actually done. It was something that was completely pre-existing, we just haven't met their baseline need for analgesia that they have before they even come in the hospital.

The responses and information volunteered by patients during conversations directed the surgeon's decision-making processes. In fact, surgeons followed conversational pathways to a baseline determination as they acquired new disclosures from the patient regarding their pain history. Dr. Harvey described formulaic pathways to

finding baseline, suggesting navigational patterns contingent on the nature of the patient's response to questions:

The case that patients are asking for more, I think you can kind of take, you know you are at a crossroads, you can take Road A or Road B. A is, okay, you know, if I tell them I sending them home with so many tablets, a quantity of "this," and their automatic response is, okay, that's not going to be enough, I'm going to need more, then I think well, one, Is this patient legitimately, do they understand the level of pain they are going to endure and that's why, "I've been in a similar situation." If it is, if it's chronically ill and has been operated on multiple times, um, and has a legitimate reason for pain, I think it's uh very, I believe that 25% I factor in, and I change my management that way.

Because of the prevalence of opioid use and abuse in the region, surgeons anticipated high tolerance levels in the majority of their patients, and this expectation influenced how they conducted clinical detective work. Surgeons considered treating a patient with prior opioid use, reliance, or addiction the norm rather than the exception. The surgeons factored the high incidence of opioid use in the population into their information-gathering processes, searching for evidence or indicators of opioid naivety rather than clues of high tolerance. In most cases, surgeons worked backward from their high-tolerance expectation during prescribing conversations to unravel the patient's baseline level, as described by Dr. Nate:

I think most residents would kind of mirror that level. Where your first thought is, this patient has been using a lot of pain meds. Not the other way, or thinking the patient doesn't. It's almost to a point where, this patient has to prove to me that he's never used pain meds before. That's kind of what it's become, so ... that's how common it is.

Conducting an opioid knowledge assessment

To gain a comprehensive understanding of the patient's pain management needs, surgeons assessed each patient's knowledge and perceptions regarding opioids during prescribing conversations. Understanding how patients thought about opioids helped

surgeons understand their expectations and histories of pain management. Most patients came to the surgery or trauma department with a set of pre-existing beliefs about opioids. Surgeons encountered a broad spectrum of patient reactions to opioids, ranging from fear and trepidation to indifference to insistence and reliance on brand-name opioids.

Surgeons were tasked with correcting misperceptions, assuring patients about the use of opioids within the surgical context, and offering better non-opioid alternatives when a patient vied for an inappropriate prescription. As Dr. Nate explained, patients with opioid use histories were outspoken about their preferred opioid during hospitalization, but often their knowledge was limited, inaccurate, or misguided from a medical perspective. Dr.

Nate used these opportunities to educate patients and clarify information:

A lot of trauma patients are very familiar with pain medications. And they will tell me exactly what works for them and what doesn't and that they're allergic to one type of opioid and not the other. A lot of patients come in, and you have to decipher whether they have actual pain-seeking behavior or they have actual pain, and um, so uh, a lot of times we have to explain to the patient, well this type of medication is the same type of medication as what you are asking, but not as strong, and you shouldn't have an allergy to this but not to the other medication, because they are the same medication.

As implied by Dr. Nate's statement, a patient possessing misguided information about an opioid typically reserved for medical experts was cause for concern. Dr.

Franklin said a patient's brazen request for a specific opioid raised tension during conversations, and these situations posed obstacles to reaching a prescribing agreement and keeping conversations constructive:

Especially for the ones who have been on narcotics for a while or at baseline. They sort of know what they get at home and they will let you know what works for them. I can't always say if that's what works for them or what feels better for them. And those patients, especially the ones that ask for specific things by name, those are the ones you have to be a little bit more vigilant about coming to an agreement with them.

Conversely, some patients were ambivalent about permitting the introduction of opioids, even for legitimate post-surgical pain. Dr. Jose and Dr. Vince noted instances when patients recovering from a procedure denied opioids or resisted asking for more medication because they feared addiction or developing a high tolerance for opioids. In these cases, surgeons educated patients about the benefits of using opioids to treat pain and ensure patients that opioids were safe in controlled settings and with the enforcement of titration timelines. Dr. Jose avoided using terminology and language implicating opioids as unsafe with the knowledge that patients who refused opioids experienced complications in recovery:

I usually never tell them — and I don't want to scare people from taking them too. I am writing these for people because they need them. So I don't want them to be afraid to take them. Just because you take a couple Percocet doesn't mean you're a drug addict. I don't even want to leave that in their head even a little bit.

Dr. Bret considered the prevalence of information about opioids in society an added burden for surgeons, who were charged with explaining proper indications and legitimate uses for opioids in the surgical setting. News coverage and prescription drug advertising predisposed people to information about opioids and normalized opioids, which many patients referenced by brand name. Because patients assumed protected opioids were the most powerful and effective options for alleviating pain, many dismissed non-narcotic pain relievers and evidence-based alternative therapies. Meanwhile, surgeons are in a phase of transitioning away from opioid-only pain management approaches and toward evidence-based, multi-modal pain management protocols, which minimize opioids and leverage multiple non-narcotic therapies to control and manage post-surgical pain. Consistent with statements from many surgeons,

Dr. Bret had to present an evidence-based argument to his patients regarding alternative treatment pathways:

I feel like patients should know that it's not the only avenue for pain management. A lot of people automatically default to that, I guess, because of how mainstream they are. Everyone knows Percocet, Vico, they are brand names essentially. I think patients aren't aware of other stuff. They think of Tylenol for headaches and stuff, but that's at lower doses and in a hospital with physician prescription, they can take it at higher doses, like 650 instead of 3.5. And that actually can be a great if not better drug for pain control than opioids.

Stratifying patients in anticipation of pain control conflict

In navigating conversational pathways, surgeons also activated mental stratification system through which they assigned patients into discrete risk and potential pain control conflicts. This organizing structure allowed them to typify patients based on anticipated problems or case-specific approaches to pain management. In addition to finding a baseline pain through patient feedback, surgeons managed the communicative task of soliciting patient feedback and integrating significant responses into a stratification structure, which guided the treatment process and provided schematic, or cognitive reference point, for the patient's pain experience. As explained by Dr. Katia, patient stratification was a naturalistic interpretation informed by previous experience:

You get three people. One, you have the person who has no idea there's any sort of opioid issue at all. Two, you have another person who has been surrounded by people who have had opioids issues, but their like center has never had it, and they are like petrified that it will happen to them. So they are like, "I don't want to take pain medicine because I'm afraid I'm going to be an addict." And for them, you don't want them to necessarily quote-unquote tough it out either. People need pain medicine to be able to move, and get up, and walk, and heal, and things like that, so you have that. And then you have the people who have had problems in the past or will probably have problems in the future.

Patient stratification also facilitated conversational customization. The surgeons adapted their questioning and their information-gathering process to the feedback and

cues transmitted by the patient during conversations. Therefore, stratification also occurred in the moment, as an extemporaneous and continuous cycle of internalizing a clue, assessing its meaning, and determining the next question to guide the patient's pain management. Because this process is difficult to control and perform in the limited amount of time surgeons consult with their patients, the stratification system provided a premise for conversation and questioning. Dr. Franklin suggested his pathways ranged from the fearful, naïve person with no opioid use history to patients admitted to the hospital with an extremely high tolerance for opioids or heroin:

I would say people probably have varying understanding of the opioid epidemic and where they would fall on that. Um, obviously we get people who come in on a lot of narcotics, and that's one discussion, and there are those who come in and are afraid of narcotics, and that's another discussion, so there's a broad spectrum of people who don't express a lot of concern about having to take narcotics, understand they need to have adequate pain control and are willing to take them as prescribed and otherwise have no issues with them.

Stratification also occurred when surgeons were discharging patients from the hospital with short-term opioid therapies. Dr. Arlene stratified her patients by reports of pain upon discharge. Her fallback schematic provided a foundation to address each type of patient's concern and pain experience. As she stated, anticipating one of three categories of patient pain expression minimized surprises or uncertainty in how to approach each patient's outpatient care:

Everybody falls in the either, "I have no pain," "I have a little bit of pain," or "I still I have a lot of pain" category. They really all — it really just falls in to those categories.

Categorization also framed potential problems with pain control arising after hospital discharge. A surgeon's past experiences indicated that patients who reported insufficient pain management during hospitalization were also likely to return to the

hospital with ongoing pain management problems at home. Dr. Cindy also employed a patient stratification system to determine safe levels of opioid medication upon discharge. Her stratification system was based on the patient's hospital trajectory. The ability to review the patient's in-hospital response to opioids and factor knowledge in decision-making for outpatient pain management helped Dr. Cindy anticipate problems:

But I think people are pretty predictable with what they're going to need because we start off with, okay, they have pills and they have morphine for breakthrough, or IV pain medicine, and most patients you take off the IV pain medicine and they do okay, and others you take off the IV pain medicine and you find yourself adding on extra pill, right, to control the pain because the pills you've given them is not enough. You really can estimate pretty reasonably what patients are going to be problems before they ever leave the hospital.

Competing obligations: Vigilance and mercy

In addition to upholding a code of professionalism in prescribing conversations, surgeons were bound to a responsibility to remediate pain they created in the operating room, thus honoring beneficence and human dignity in post-surgical practice. Many surgeons alluded to a profound sense of contrition in subjecting their patients to bodily harm, as the invasive nature of surgery connoted a deep intimacy and devotion to the patient's post-surgical recovery process. Surgeons felt obligated to alleviate the pain they inflicted on their patients. Therefore, surgeons exhibited a fidelity to treating the patient's surgically induced pain, which sometimes overlapped with their obligation to exercise vigilance in prescribing. They believed neglecting pain, even to accomplish other relationship, task, or identity goals, violated the surgeon's moral obligation to demonstrate beneficence and mercy in controlling inevitable post-surgical pain. As Dr. Tammy stated, surgeons are hardwired to treat pain and share the consequences of surgery with their patients:

Our field is very intimate. Like, you are getting someone's full trust and we're cutting someone open. And so from the moment that I've committed to you to where you can walk out and not have any pain or at least get back to your normal life, you belong to me. And so I want you to be able to get back to where you were before or at least fix the problem that you presented to me. I made that commitment, you know?

Surgeons also described the ability to rectify a problem in the human body as a defining characteristic of their chosen medical field. Dr. Sean, for instance, decided to become a surgeon because he wanted to repair injuries in the body and return people to a normal life. Surgeons expressed a fixation with eliminating the physical problem they targeted during pre-operative consultation or upon admission in the trauma unit, and resolving the entire medical problem also meant treating post-operative pain. Dr. Sean said a patient's complaints about persistent or intolerable pain are a source of consternation for surgeons:

I think that you are touching on something that's frustrating for all of us as physicians, is, and we alluded to this earlier, is we all want to treat patients, we all want to make them feel better. Especially from the surgical standpoint, that's the reason I became a surgeon, is to take somebody who has a problem and make them better. So, one of the very frustrating things for us is patients who say we're not treating their pain.

The surgeon's responsibility to merciful prescribing practices intensified with more experience in medical practice. While younger members of the department felt pressure to regulate opioids and exercise vigilance in response to a societal problem, more experienced surgeons founded their decision-making on compassion, often giving questionable patients the benefit of the doubt. Dr. Vince believed veering toward mercy in prescribing increased the chances of a pain-stricken patient engaging in the medical community and seeking medications through legitimate sources. As he learned with

experience, abandoning the patient or cutting them off cold turkey increased the likelihood of aberrant behavior:

I believe the younger providers are a little bit scared to fuel the fire, the epidemic and that sort of thing, especially in this area. And I think I was too, when I was real young. And I see that from some of our interns, from some of our younger PAs, NPs. They say, “Well, I’m not giving them any pain medicine. They go home, they don’t need it anymore.” And I usually say a follow up question from that, “Well, what are they getting in the hospital?” Because virtually everyone in the hospital who is here for a traumatic type thing or a surgery is getting some sort of an opioid. And to just stop them cold turkey on the day of discharge, that patient’s going to bounce back to our emergency department. Or another emergency department. Or to their primary care physician. Or they’re going to go to the guy down the street and buy something illicit to control their pain when they go home. So it seems more reasonable to me for us to continue their pain management that they’re on currently in the hospital if that’s doing an adequate job controlling their pain, and it’s reasonable, it’s cool, to give them that when they discharge from the hospital so they don’t have to do these other things. Part of it may be that I tend to see the good people.

Even with patients whose dialogue raised red flags of misuse or abuse, surgeons attended to their pain under the stipulations of beneficence and fair treatment. As communicated by Dr. Katia, a history of substance abuse or addiction did not preclude the patient from receiving adequate pain control in acute care settings:

And then you have the people who have had problems in the past or will probably have problems in the future. And for those people, I think you want to focus with them, I don’t want to necessarily be like their judge and jury and make them feel bad about the past or to make them feel bad, because I don’t think that’s 100% my place, but I do want them to know that I’m their acute care doctor, right?

In critical care situations, the surgeons prioritized the standard of beneficence over inferior concerns regarding the potential for misuse or addiction. Dr. Franklin explained that attending to emergent condition of the patient’s disease or injury took precedence over any consideration regarding opioid prescribing risks. In many cases, the effort to save a life or handle an urgent medical need overshadowed decisions regarding responsible prescribing:

The biggest thing I worry more about than, “Are they going to become addicted and have an opioid problem for years on end after they leave the hospital?” — I am more concerned about, ‘Is there pain acutely controlled?’ Because that is the bigger concern for me.

Consistent with their professional identity goals, surgeons regarded the opioid epidemic as a serious societal crisis and understood the allegations against members of their profession for creating a medical culture that enables addiction. They countered the communicative goal of showing mercy by expressing a duty to exercise vigilance in prescribing conversations. This objective was rooted in a desire to exonerate the medical profession and respect the prescribing privileges they earned through rigorous medical training. Dr. Jose suggested surgeons inherited a burden of reversing over-prescribing trends and containing the epidemic:

I mean there is no doubt in my mind that we 100% contributed to the opioid epidemic. But I also feel like there was an equal surge in people saying, “Our pain’s untreated.” And that was my understanding of that swell. What that there was a period in time where we weren’t doing a good job controlling people’s pain. Oxycodone came onto the market and it was, uh, marketed well by the pharmaceutical industry. And we took it on. People had pain, so we put a pill in their mouth. Here we are.

Just as surgeons showed remorse for surgically inducing pain, they expressed equal regret for prescribing decisions that, in retrospect, may have contributed to a patient’s opioid disorder. These two goals collided in prescribing conversations to the benefit of the drug-seeking patient. Surgeons who favored beneficence in opioid decision-making abandoned their post as a judicious prescriber while surgeons who denied opioids ran the risk of neglecting pain and thereby violating beneficence. Finding a compromise between these intertwined objectives was sometimes difficult, and Dr. Vince suggested surgeons could prevent a deadlock between acting in beneficence and exercising vigilance by establishing expectations at the front-end of treatment:

And the reason I know you have to set expectations for patients and have those conversations is because I learned the hard way. Um, I was one of those people who just put the stamp on the script for whatever narcotic and sent the patient out. And they come back a week later and they've used their four-week supply of pain medicine. You say, you know, "Sure here you go, here's the medicine." That type of provider fuels the whole fire and keeps the circle going.

Alerting to pain-seeking ploys

Among the many communicative task goals during opioid-prescribing conversations, surgeons sifted through prescribing conversations for cues and dialogue indicating opioid misuse or abuse potential. This communicative task was presented as a moralistic obligation and a professional duty. During prescribing conversations, surgeons evaluated the authenticity of a patient's plea and identified exaggerated expressions of pain or other "pain-seeking" ploys exposed during prescribing conversations. A component of detective work was remaining vigilant and alert to suspicious behavior, disingenuous statements, scripted dialogue, or inconsistent stories, then responding in a manner that protected their identity and morality. Picking up on aberrant behavior was a skill developed through clinical experience. Dr. Katia said patients "performed" a pain severity or feigned ignorance, using similar lines and expressions in conversation to get the medication they wanted:

It's not even like I am on the lookout for red flags, they bring them to me. It's so— it's really interesting. And you are just sitting there are you are like — do you know? I always wonder if they know that I know this is going on? Like, you are not the first one to start with a "d" and end with a "d," I've heard that line before.

A patient's assertiveness and layering of excuses also clued surgeons into the potential for aberrant opioid use behavior. Dr. Bret said patients who came into the clinic fixated on the amount or type of pain medication they would receive were obvious pain-seekers:

It's like a gut instinct. Like someone comes in and if they have track marks or things like that, just signs that they might use illicit drugs or if right off the bat the first thing they ask for is opioids for pain, that's sort of suspicious and also people that are able to name specific opioids, that's another common one. Or if they're allergic to certain opioids, that's a common one. Like, "I am allergic to everything but dilaudid," right?

Being cognizant of pain-seeking ploys and reacting to scripted pain-seeking dialogue infringed on relationship development, another crucial element of patient-centered care and individualized medicine. In the process of casing a patient, developing background information, and assessing the patient's intent, the surgeon also attempted to reinforce an identity and accomplish relationship goals.

Expertism Collides with Therapeutic Partnership

Surgeons were intentional in asserting their status as an expert with superior knowledge and decision-making authority during pain management discourse with patients. While preserving their identity and demonstrating empathy, they also pronounced their status as specialized experts who reserved the right to limit, discourage, or deny a medication request inconsistent with their medical opinion. The communicative goal of demonstrating "expertism" in prescribing opioids constricted the simultaneous effort to cultivate a trust, rapport, and solidarity with their patients during the transient period of post-surgical care. Surgeons attempted to engage patients in a manner that resembled patient-centeredness, which was imperative for assuring patients that their preferences, values, opinions, and input were factored into the prescription decision-making. In the same interactions, surgeons underscored their identities as experts and executive decision-makers regarding the dispensing of prescriptions in the patient-provider dyad. The surgeons denoted a disproportionate appropriation of decision-making

power in the opioid-prescribing relationship favoring their position as the medical expert. Dr. Harvey, for instance, stated that he integrated the patient's input and preferences in his decision-making, but his medical opinion governed the decision-making regarding opioids:

I would say maybe 75% I use my clinical judgment and I make the decisions. And then I factor in maybe 25% of that final prescription that I write based on what the patient has to offer, or that kind of feedback that they give.

Through interactions with patients, surgeons contended that their medical knowledge, training, and clinical experience afforded them a position of power in the prescribing relationship, but this power carried a heightened responsibility for the adverse and beneficial effects of opioids. The surgeons further argued that allowing patient feedback to dominate the decision-making endangered the patient's wellbeing and safety. Dr. Bret refuted the notion that upholding patient-centeredness tilted the scale of prescribing authority in favor of the patient. He stated that patients, who lack medical knowledge, training, and experience surgeon work years to acquire, aren't privileged to specialized information and insight necessary for directing opioid-prescribing decisions:

You can't just like prescribe opioids; you can't just like give them exactly what they want. Because I feel like, you know, patients are accurate indicators for obviously if they are in pain or not, but I don't know if they can exactly quantify the amount that they need. They can tell us, "I need more," but if they are already on like, say, 60 oxys [slang] or something insane, what's more? Another 20? Another five? For you or I, five would be plenty, 20 would probably kill us. So it's just difficult I guess being in that situation where people are already tolerant and then adding a surgical component.

Consistent with Dr. Bret's stance, Dr. Katia proceeded with caution when patients requested specific opioids in the prescribing conversation. Dr. Katia interpreted a patient's familiarity with obscure drugs or offhanded use of medical terminology as signs of high tolerance or precursors to aberrant behavior. Dr. Katia argued even patients who

think they know the most effective opioid for their pain should be limited in their ability to influence the prescribing decision:

A patient is not a physician. I mean, a patient doesn't know what doses of medications they should be on or which medications they should be on, regardless of what — I mean it sounds snotty — of what they think they know. We have patients that walk in and they are like, "Oh, only dilaudid works for me." You know ... uh. "I can only take the Perc-10s. I am allergic to the Perc-5s." Just really specific things, and to me, unfortunately, that is a red flag that this patient has like not just been taking it for their acute care surgery problem.

Surgeons also gained self-assurance by asserting their authority and regulating the patient's input in prescribing decisions, which was a strategy to protect their reputation and integrity. Alluding to their medical licensure, medical experience, knowledge, and ethical boundaries achieved a communicative goal of protecting their identity as upstanding professionals. Conscientious of the opioid epidemic and over-prescribing practices, surgeons were reluctant to accede to patient requests that challenged their professional integrity and identity. Maintaining their status as an expert and authority is joined by the goal of upholding a sense of professionalism and integrity in exercising their prescribing privileges. Surgeons are bound to moral, legal, and ethical prescribing standards while balancing these considerations with the patient's input and presentation. Dr. Emily described a willingness to accommodate her patient to the point that she felt their demands violated her professional integrity:

You know, if we can't find a consensus it might be best for them to find another physician. Because I am not going to compromise my ethics or certainly not my medical license to allow them to push towards a plan of care that's going to endanger them or put me in a legally precarious situation.

Dr. Tammy described a difficulty in parsing out the objectives of the patient's participation in the opioid-prescribing conversation. She identified a tacit tension between her goal of exercising authority and asserting her authority in the patient-

provider dyad while acknowledging that she also must trust her patient's feedback and incorporate their preferences into her decision-making. The tension between communicating expertism and authority constrained the physician's ability to trust their patients, suggesting that a reciprocal trust was necessary for shared-decision making. Dr. Tammy expressed the paradox of enforcing her identity while building trusting. While dissociating with unethical practices and warning patients against perfidious behavior under her care, she also needed to earn her patient's confidence and compliance:

I mean, that's not my job. My job is to work with my patients and not to be a fool. I'm not going to be stupid and giving you prescriptions to give to your mother, but at the same time if you are telling me you are hurting, at one point in time you have to have trust in that relationship.

Surgeons felt the need to remove themselves from a category of providers with patterned histories of overprescribing and accommodating patients with unsafe levels of opioids. They treated the prescription as a traceable document reflecting their integrity, diligence, and identity as a responsible provider. Dr. Gert summated this viewpoint in discussing how he protected his reputation and career by consulting with other providers when a prescription seemed inappropriate:

This is not any big mystery and not any big reveal, but your name is at the bottom of whatever you do. So what you want to precede you and what you want to involve yourself in, there will be your name. So in making decisions about patient care, that's your reputation and in certain settings, that's your career as well. You want to do what you're comfortable with. Being uncomfortable with something should inspire conversation. So if you're not comfortable talk to someone else about it, get another opinion, get a senior partner's opinion. That increases the odds of you doing the right thing.

However, overt expressions of paternalism and gestures of absolute authority in pain management decision-making violated patient-centeredness and impeded the surgeon's ability to form a therapeutic relationship. A surgeon's assertiveness to protect a

professional identity was a source of discordance in the therapeutic partnership. Surgeons were aware paternalistic approaches to prescription decision-making deterred patient engagement and collaboration. The surgeon's relationship goal of establishing rapport and facilitating a trust with their patients challenged their identity goal of exercising authority and protecting their identity during prescription decision-making. The friction between relationship and identity goals surfaced as surgeons discussed the importance of achieving symbiosis with their patients for ease the flow of care and manage expectations. This therapeutic symbiosis allowed them to gain adherence and compliance, as suggested by Dr. Vince:

There isn't a whole lot you can do in my experience if the patients aren't willing to work with you. If the patients are willing to follow up and stay in touch and that sort of thing. One way or another, you are either getting them off medication or providing them with medication.

Symbiotic patient-provider dyads remained committed to shared goals of pain management established before a surgery or during the early recovery phases. Reciprocal trust, rapport, and solidarity, or a sense of unity or oneness, enabled the patient-provider dyad to function as a unit. Rather than challenging one another and competing for authority in prescription decision-making, patients and providers cooperated and collaborated as a team. When surgeons established a foundation of trust, they gained the patient's compliance or "buy-in," as described by Dr. Tammy:

I think that if people understand that your goal is the same as theirs, it parallels theirs, then they trust you. Some people don't like you, you know, everyone has their own preference but it's a matter of trust and doing the right thing for someone. We deal with people of all — everybody you can imagine, and you are not going to like everybody. But to be able to gain trust is real important for a surgeon especially. It is very important. But I think if you are going into surgery, even skeptical patients recognize that they have a short period of time to gain trust in their surgeon. It's not like their psychiatrist where they can hem and haw at their psychiatrist and decide in five days if they want to trust them. It's like, I

have one hour and I need to make sure if I trust this person or not. And so you help them with that transition.

Patient buy-in was a precursor to compliance, but surgeons also found that patients who trusted their decisions deferred to the surgeon's judgment. Laying the foundations of trust, rapport, and unified goals in pain management conversations also facilitated fluid decision-making processes that empowered the surgeon to exercise authority and "expertism." Their patients acknowledged the provider possessed superior expertise in pain management and relinquished much of the decision-making authority. Dr. Gert said engaging patients in conversation, listening to concerns, and presenting reasonable arguments resulted in strong therapeutic bonds through the duration of treatment:

They will have had a traumatic experience, which leave them very vulnerable. So the natural inclination of any human or animal is to be on the defensive. And so as open-ended a conversation you can have with them, the better. And I think once you establish that rapport and establish that you're going to do all the things that are in their best interest, again most people will do what you want as I think is reasonably expected.

In fact, Dr. Emily emphasized the importance of listening to her patient's concerns and responding with a plan of action. In counseling an elderly patient on post-surgical pain management, Dr. Emily discovered her patient's relative was addicted to opioids, and therefore possessing opioids during outpatient recovery put the family at risk for burglary and theft. She responded by customizing a pain control regimen that minimized opioids and transitioned the patient to non-narcotic therapies for home use. Shared medical care goals served as a common reference point for patients and providers, and these goals shaped conversations regarding the pain regimen. Dr. Emily presented

her pain management decisions as opportunities to reach those goals, and then work with the patient to adjust the plan in a manner consistent with her ethical boundaries:

I sit down next to them, rather than standing over them. I think that helps kind of build some rapport. I find some common ground with them first and get an idea of how important pain management is to them, and when they felt it's been adequate in the past, where they feel like they're on that scale now. Um, I like to get their suggestions and let them know I am open to their suggestions for other ways of pain management and just kind of getting their input, letting them know we're on the same team, we're working toward the same goal. If we can identify places where we can collaborate and work together, that's where I find the most strength is really just building a patient relationship and if their goals aren't in perfect alignment with mine, I try to find a compromise that I am going to feel ethically good about as a physician, but ethically and legally good about, but also something that's going to adequately control their pain.

Similarly, Dr. Katia encountered a patient who requested opioids for a neuropathic pain. Dr. Katia took time to listen to his concerns and learn about his lifestyle goals, which included playing with his child. Taking time to learn about the patient, find common ground, and rationalized her decision as the most beneficial option for the patient diffused the initial conflict:

And so you try alternate paths of helping them. So I talked with him for a while about how probably narcotics are probably not the answer because it was kind of a cover-up. And we started him on Neurontin [alternative drug], which is more specific to neuropathic pain, and how we think that's likely more what he has and how that's probably going to be better than him, and narcotics maybe short-term that's kind of a fix. You know, his whole, his goal was one, to be able to work again and two, to be able to play with his kid. And I was like, "You know, narcotics, they like knock you out. They have these other side effects."

To preserve the stability of the patient relationship, surgeons enacted persuasive tactics to seek compliance and cooperation from resolute patients requesting a prescription regimen in violation of the surgeon's ethical or legal boundaries. Surgeons reported rationalizing with opioid-seeking patients as well as patients who refused opioids for fear of the addictive potential of the drugs. To show respect for the

relationship while maintaining their opinion as most beneficial, surgeons resorted to using persuasion and reason to elicit patient buy-in, as described by Dr. Jose:

And we tell them going into it, it's like, "We're going to give you an epidural." And some people are reluctant because they don't want an epidural. And it's like, "Well, listen, this is just part of this pathway, um, in terms of getting out of the hospital. Because no one wants to live in a hospital, and we certainly, we like to get people better and get them home," um, so it's a lot of coaxing, in that how this is going to be how the plan's going to play out, you know?

Those surgeons who desired to gain a patient's buy-in, rather than force a prescription decision against the patient's will, developed persuasive tactics and strategies in conversation to change their patient's mind about the prescription regimen. They founded their persuasive arguments on recovery goals.

Linking pain management decisions to recovery goals

To reinforce their expert identity, surgeons linked their prescribing decisions to the shared big-picture goals they established preoperative or on the front-end of the recovery process. Harkening back to shared objectives in recovery, such as going home from the hospital or getting back to work, reinforced the mutual investment in the treatment plan and prompted patients to put their temporary discomfort into perspective. Surgeons rationalized and justified their prescribing decisions by connecting the benefits of the decision to the long-term outcome, or shared goal. Dr. Ophelia referred to "coaching" her patients as they continued to progress, stopping in the hallway to commend them for getting out of bed or taking "big, deep breaths" on their spirometer tests. As she explained, encouraging the patient through the trials of recovery built ongoing rapport and kept their attention fixed on big-picture goals rather than the nuances of the prescription regimen:

Every day you set the goals, you go in and talk to the patient, and you have to tell them they did a good job if they did a good job. And you tell them, you know, “You are doing great.” And you have to really reinforce that they are making progress because sometimes they don’t see it. And the nurses here are great with doing that and telling them they do a good job. But if your doctor comes in and tells you, “You have done everything that I’ve asked you to do,” you know, “thank you so much,” people want to please you, usually.

To the surgeon’s advantage, shared goals served as leverage for gaining patient buy-in and cooperation with pain management decisions. When patients felt a surgeon was dedicated to their personalized end-of-care goals, they trusted his or her expertise and judgment. In terms of pain management decisions, authorizing a prescription without compliance or buy-in from the patient violated the patient’s trust and damaged the relationship for the duration of care. As Dr. Tammy explained, trust and compliance were fragile factors in the stability of the relationship that needed attention and reinforcement through the duration of the surgical recovery process:

So you have to have a common goal with everybody hospital, and it’s very hard when you have somebody who doesn’t want to leave the hospital. So most people want to go home, most people want to go back to their normal life, for whatever reason that is, and most people don’t want to be in pain. So that’s a common ground that you tend to have with the patient. So if they feel that you are on the same team with them in trying to achieve that common goal, even if you are approaching it in a different way than they would expect, then they tend to be on board. And if what you do works and you’ve explained it to them, then if you need to adjust it, they’re on your same team. Whereas if you just take away their pain pump [patient-controlled analgesia] and you don’t tell them about it, it feels like you’ve betrayed that trust especially because transitioning to stuff by mouth is going to be harder, and it’s more long acting and people respond differently.

In many instances, gaining buy-in demanded a renegotiation of priorities, such as relinquishing some level of authority for the exchange for cooperation and consensual agreements on pain-management decisions.

Forgoing authority to gain buy-in

Surgeons often entered opioid-prescribing conversations with incompatible relationship and identity goals. While instituting their prescribing authority and protecting their identities, the surgeons also attempted to gain trust, build rapport, and establish shared goals, which anchored decisions throughout the recovery period. When these goals collided in opioid prescribing conversations, surgeons responded with cost-and-rewards negotiations in which one communicative goal was subverted or abandoned for the sake of achieving a more salient goal in the interaction. For instance, Dr. Nate diminished his expertise and identity in communication for the benefit of retaining compliance and trust from his patients:

You need to just meet kind of in the middle just to keep giving them care because pain control is important, narcotics are important, becoming dependent on narcotics certainly is a concern, but in the acute setting we're worried about something way bigger. Like things that could make the patient better or life and death situations. You have to negotiate and make uh, sometimes give the patients what they want so they can follow you in something way more important.

Other surgeons, such as Dr. Cindy, placed less emphasis on expertise and identity for the sake of avoiding conflict. She reported a willingness to relegate her identity goals in order to accomplish relationship goals through communication. In this instance, she pacified a patient's request as a display of attentiveness to the patient's concerns:

And people will say, "Well, you know, that's not fair. There's people who abuse pills, but they are ruining it for everyone, all the people who have legitimate pain." And you hear that so many times, it's incredible. "Well, I don't abuse them, I just have pain," or "I am not going to abuse them, I just don't want to be in pain." And so, they try to make you feel bad by not giving them prescriptions. And you are like, "Okay, well I'll give you like seven." [Laughs.] "I will give you this many, but no more than this." Sometimes to make the patient feel like you are listening to them.

The goal of fortifying the relationship also obstructed identity goals when patients outright rejected the treatment regimen offered by the surgeon. For example, Dr. Ophelia proposed a therapeutic regimen consistent with her identity as an ethical prescriber, but her patient, who had developed a tolerance for opioids, opposed the regimen, suggesting his tolerance exceeded the level of pain control she was willing to offer. While Dr. Ophelia didn't adjust her recommendation, she held a candid, protected discussion with the patient regarding her prescribing ethics and his ability to access opioids through unlawful sources. While she didn't condone his intention to seek medication through outside sources, she understood the greater implications of destabilizing the relationship by casting judgment or dismissing his opinion. In refusing to amend in her prescribing limitations and respecting the patient's contributions to the conversation and forthrightness about his opioid use history, Dr. Ophelia maintained reciprocal trust necessary for achieving the larger-scale goals of medical care:

And some people are very ... they don't care to tell you that, and they don't get mad at you. And they understand. There was one patient he was um, I think that he was in a motorcycle gang or something, but he was a very nice man. I don't know what his extracurricular activities were, but he was very nice and I think he said, "Oh, honey, this is not going to treat my pain." And I said, "You know, I am very sorry." And we had an adult conversation about what I could provide to him safely and legally, and he said, "Don't worry about it," you know, "I'll take care of it." He said he can get his own pain medicine. And I said, "I don't promote that. And I don't agree with that, but you are going to do what you are going to do no matter what I tell you, so I can give you this prescription for Percocet. Don't give it to anybody else. Don't sell it to anybody else. But this is what I can give you." And he said, "Okay."

Alternative conceptualizations of patient-centeredness

Surgeons believed their medical expertise carried more weight in prescribing decisions, but they also expressed that patients were amenable to their prescription recommendations. When patients trusted a surgeon, whether because of the emergent

nature of their operation or because the surgeon established trust, they accepted a power imbalance in prescription decision-making. Surgeons carried the burden of decision-making and interpreted patient-centeredness as proposing the safest, evidence-based recommendation while individualizing treatment based on the patient's subjective feedback. For instance, Dr. Tammy called a patient's medical incompetence the one "luxury" of undergoing surgery, as patients, often unconscious or cognitively altered, lacked the knowledge or mental capacity to direct pain management. As expressed by Dr. Harvey, individualizing care and attending to the patient's preferences, needs, and opinions should be tempered with a patient's awareness that a doctor's expertise eclipses the patient's subjective authority in prescribing decisions. This imbalance of power in the relationship ultimately favored the patient, releasing them from the burden of agonizing over decisions and processing complex information during a vulnerable post-surgical recovery period. Therefore, patient-centeredness takes on a different meaning for patients in surgical contexts. Surgeons conceptualized patient-centeredness as process of negotiation within the limits of safety and medical expertise. Ideally, patient-centered practice engages the patient in decisions that are important and relevant to their health without infringing on the surgeon's identity or ethics, as articulated by Dr. Harvey:

Because every patient has autonomy. So we always have to factor in autonomy. Autonomy does not mean they can have as much pain medication as they want. Autonomy means they can make the decision to take this medication or not, they have the capacity to request more pain medication. They have the autonomy to request a new provider if they are not happy with my services. But that does not, you know, mean I should give them as many — or give in to every one of their demands, because then that would violate beneficence.

Balancing identity and relationship goals proved problematic for surgeons, but they were equally conflicted conducting pain management conversations that incorporated the art and science of their practice.

Reconciling the Art and Science of Pain Management

Surgeons attempted to formulate a pain management regimen based on medical science and past surgical outcomes while simultaneously managing a communication task of individualizing medical care and attending to the whole person, referred to as practicing the “art” of medicine. Whereas the humanistic art of medicine required a careful interpretation of the patient’s lived, subjective experience – or distinctive experiences, sensations, mannerisms, emotions, preferences, perceptions, and characteristics intrinsic to the individual – the scientific standpoint emphasized textbook knowledge, objective evidence, statistical projections, institutional guidelines, and predictive approaches to pain management consistent with standardizations in surgical recovery. Therefore, the surgeons incorporated subjective information, such as the patient’s expression of pain severity, into a decision-making process guided by scientific knowledge and evidence-based protocols.

The science of prescribing

In communicating with the scientific mindset, surgeons recommended narcotic formulations or pain management protocols to minimize the potential for error in decision-making and maximize the chances of proposing an effective pain management regimen. Surgeons noted that their medical training prepared them to use scientific knowledge to direct these decisions. They referenced scientific guidelines and past patient outcomes as reference points for pain management decision-making. The primacy

of scientific objectivism was evident in the manner surgeons described communicating with patients about prescribing opioids for imminent post-surgical pain. Scientific knowledge and experience allowed the surgeons to develop consistent pain management scripts for specific surgical operations or injuries. Surgeons expected these scientific and experiential pain management formulations to provide adequate relief for opioid-naïve patients, or those patients with no prior history of opioid use. Dr. Bret attested that scientific approaches strengthen surgeon's confidence in opioid prescribing, allowing little room for deviation or bending to the requests of patients, thus preventing opportunities to move into over-prescribing territory:

We will tell them pain can very difficult to control, but we feel like we are providing an adequate regimen for people who are in — like similar people who have been through the same thing that have the same medical history — we compare them to prior patients and kind of go off of it. Because even though you and I are different, our pain medication regimen probably would be very similar, but maybe a little bit off, but not so off we would change up the amount significantly.

As another example of upholding the scientific approach in pain management, Dr. Harvey used his surgical knowledge and past experiences to mentally assign patients to pain severity categories. He ranked the severity of an incision or injury as mild, moderate to mild, or mild to severe, and memorized protocols recommended in the past to treat these injuries. Other surgeons mirrored this approach in reporting cognitive process through which they matched a medication protocol to a specific type of surgery or injury. Dr. Harvey's cognitive stratification system for pain severity allowed him to retrieve pain management strategies from his knowledge base while accomplishing a communicative task of setting pain intensity expectations for his patients:

I kind of appropriately give them an expectation of how much pain control they'll get. And I try to give them pain medication based on their degree of, you know, of

their injury or their operation. So kind of like ... I'm just like stratifying it in that way, I guess. If it's like an incision, a simple surgical incision verses like an orthopedic fracture, those kind of get stratified differently.

In addition, surgeons deferred to opioid-prescribing formulas developed by more experienced surgeons in the department. These straightforward, standardized protocols for medicating patients gave surgeons little latitude for adjusting or deviating from pain protocols more experienced colleagues found to be safe and appropriate for a given surgery. They suggested that standardized, scientifically validated approaches to pain management were sufficient for most patients without a prior dependency or abuse history. Therefore, they respected the validity of prescribing formulas established by upper-level surgeons and relied on these approaches to maintain flow in prescribing outpatient therapies and discharging patients from the hospital. These formulas were proven effective for a majority of cases, and therefore residents, including Dr. Jose, upheld the practice of prescribing a strict dosage validated by an upper-level surgeon:

One of our attendings in particular writes all the pain scripts, so she does outpatients surgery. So, it's a very um, straight—not straightforward operation, but she knows what she's doing every time and everyone pretty much gets the same thing every time. There's very little deviation from it.

Further, Dr. Franklin, a critical care fellow, suggested trauma surgeon have no choice but to formulate decisions on scientific and empirical knowledge when their patients are incapacitated by an injury or medical circumstance. These science-based protocols were reliable methods for controlling pain when the patient's condition precluded patient-centered approaches to medical decision-making. Met with the pressure to control pain and suffering resulting from traumatic and life-threatening incidents, Dr. Franklin employed scientific protocols proven to effectively manage pain in the past,

attending to the more imminent problem. If opportunities for patient-centered communication arose, he adapted the pain management process as needed:

So usually we will give them a dose of oxycodone and have some as needed on top of that, um, and we are gauging how often they need the as-needed, the scheduled doses go away and they just get it as-needed. If they are requiring the as-needed in addition to what we scheduled, we may increase the dosing schedule. So we kind of have it down to an algorithm in how we manage pain in that situation. Once the patient is becoming more interactive and telling us whether they are in pain or not, we can make adjustments there.

Drawing temporal boundaries

Consistent with the scientific approach to pain management, surgeons confined their pain management agreements to temporal boundaries, basing these recovery timelines on medical directives, institutional guidelines, the clinical diagnosis, and their expert knowledge of the healing process. In many instances, surgeons outlined rigid post-surgical pain control expectations and established an endpoint for the opioid-prescribing arrangement, which ranged from two to four weeks post-surgery. After the termination of the prescribing arrangement, they advised patients seek care elsewhere, see a pain management specialist, or try over-the-counter drugs to alleviate their pain. Founding their position on both expert knowledge and past experiences, they informed patients that pain persisting beyond the two- to four-week post-surgical prescribing window was no longer the surgeon's responsibility, as expressed by Dr. Arlene:

You know, I feel like as a surgeon it's my duty to give you medicine right after the operation, but then if you persist to have pain after that, that's not really my issue, that's you're having chronic pain from your disease. So that's not really my realm of being able to manage that, which is then there's no endpoint, it's just continuous, I just kind of become your drug dealer a little bit.

Drawing prescribing boundaries, a communicative goal intended to protect the patient and physician from the consequences of overprescribing and perpetual pain

management, created tension with the goal of individualizing care and tailoring treatment to the distinctive needs of the patient. Surgeons struggled to find communicative strategies to assuage the tension between conveying prescribing limitations and remaining responsive and adaptable to the patient's subjective feedback and individualized recovery process. When confronted with patients admitted for trauma or surgery with pre-existing pain or chronic forms of pain, the surgeons distinguished the two sources of pain, reminding the patients dispensing opioid prescriptions for an underlying or chronic pain source constituted an ethical breach in practice. Making this distinction proved difficult, which was evident when Dr. Cindy described conversations when she needed to establish her prescribing boundaries at the front-end of the patient-provider relationship:

I'm like, "You can take your baseline pain medicine, take that as you normally take it and then this is only for breakthrough pain on top of that." I think that's what you have to set with your chronic pain patients, because they almost expect you are like going to provide them with this ridiculous amount of narcotics for chronic pain, but that's not what my job is. My job is to treat the acute pain that I've caused you in surgery, not to provide you with your prescription for your back pain for the next six months.

In acute care surgery, surgeons needed to place protective boundaries around the prescribing relationship to prevent over-prescribing or lingering prescribing arrangements considered inappropriate in the surgical context. However, as they factored subjective observation and intuition into the prescribing equation, these boundaries were prone to change to individualize patient care.

Prescribing as a human-centered art

Because pain is subjective and contingent on personal and perceptual factors, surgeons also balanced their scientific approach to pain management with the medical

“art” of human observation and interaction. Surgeons suggested the inverse of scientific medicine, the art of medicine, involved subjective observation, interpretation, accounting for biases, making judgment calls, and acting on intuition to guide medical care. To fulfill their role as artful medical professionals and balance scientific evidence with subjective observation, surgeons engaged with their patient through communication. Dr. Emily contended that communication was a defining trait of her profession that enabled deliberation and collaboration, leading to better medical decision-making:

That’s what differentiates us from being technicians to actually practicing the art of medicine. I think a huge component of being a physician is being able to communicate with your patient.

While subjective judgment in medical decision-making separated surgeons as artful practitioners of personalized medicine, using subjective judgment was also necessary for surgeons to isolate and define the patient’s pain experience. Pain is a subjective phenomenon influenced by multiple factors and difficult to quantify through objective measures or self-reported scales. Therefore, exercising the art of medicine was necessary for surgeons to respond to a patient’s individualized pain experience. Surgeons incorporated subjective reports, feedback, and preferences in attempt to achieve the goal of tailoring a pain management regimen that provided adequate relief. Dr. Bret stated that he initiated a pain treatment regimen based on scientific standards, incorporating the patient’s history with the goal of locating a quantifiable baseline, but transitioned to a phase of accommodation with his patients, teasing out subjective information and reacting to patient feedback by making slight adjustments to the pain management program until he achieved a treatment regimen rooted in science but modified based on the patient’s subjective feedback:

It's like trying to flesh out – it just seems so complicated. There is no set dialogue of, I just go through this every time with a patient because everyone's got, um, I guess because it's so subjective, a different scenario that they're coming from. So basically if I had to group it generally, try to quantify the pain, try to figure out what they are experiencing, the pain, given the scenario, see if that pain is appropriate for opioids.

In contrast to the algorithms and formulas available through scientific approaches to pain management, surgeons lacked standardized processes or structures for weighing subjectivity in their prescription decision-making. Surgeons gained a deeper awareness of the patient's pain experience by internalizing subjective information – complaints, demeanor, expressions of pain, tone of voice, gestures, and levels of coherence – and integrating these interpretive measures into their decision-making process. Surgeons were also guided by their own biases, thoughts, intuition, and therefore incorporated their own subjective judgment into pain management communication. For many surgeons, like Dr. Harvey, incorporating the subjective side of medicine was a trial-and-error process that required the surgeons to remain sensitive to the conditions, emotions, and opinions of the patient:

I think a lot of (decision-making) is the subjective side of medicine. A lot of people say the “art” of medicine. I guess you get a feeling for someone, um, you kind of, you may not have an algorithm you use, you may just try like, different combinations of medications, or maybe ... you may overshoot a little bit to get ahead of the pain first. I think in a legitimate concern, people will tend to overshoot a little bit, and maybe get a little bit better control and then try to titrate down.

Practicing the art of medicine also required introspection, as the surgeon's beliefs, personal biases, and perceptions, and premonitions about the patient infiltrated their communication and prescription decision-making. Dr. Harvey referred to a “morality spectrum,” or a mental scale for gauging the patient's motivation and intent for treatment through conversation and visual cues. Certain indicators, such as a disheveled appearance

or sense that the patient was eager to obtain a prescription, influenced where a patient landed on the provider's morality spectrum. Surgeons accounted for their biases and inclinations, but also depended on their subjective judgment to guide their choices and draw inferences regarding the motives and intent of the patient. Dr. Gert surmised that every surgeon reaches a point in patient interactions when they must exercise their own subjective judgment to determine the proper next step. Although he stated personal biases and perceptions of the inevitably influence his interactions and judgment calls, he used safety as a barometer for his opioid-prescribing decisions, as well as all other medical decisions:

Because really if you start out with greater than the minimum dose, you are making a judgment call, and really you are making a judgment call no matter what. And I think that's where becoming a safe provider comes in. Because, first and foremost the most important thing I think you have to learn as part of your training, at least as far as I've gotten, is to be safe in whatever circumstance.

Integrating the art of medicine also allowed physicians to wade through the grey, uncertain areas of prescribing, which were unresolved by scientific evidence and knowledge. In many instances, surgeons used subjective judgment to decide whether a patient was exaggerating the severity of their pain in attempt to obtain more medicine or vocalizing a genuine and valid need for higher dosages of opioids. Dr. Cindy described this aspect of the art of medicine as proceeding with a defensive mindset, listening for verbal cues and decoding signals in patient interactions that constituted immoral or suspect conduct. However, Dr. Cindy suggested employing subjective judgment during patient interactions allowed her to differentiate between those patients who were manipulating the system and those who were genuinely suffering:

You can pick that up just by talking to your patient and observing them and seeing the cues. You can pick up on a lot of things, and I think that's what we're

trained to do. You are trained to be suspicious and really observe things, and I think most of us know when someone is trying to abuse. None of us are like stupid; we know when patients are trying to get pain medicine. But you also know when your patient is really in pain and needs medicine, and I don't think there should ever be someone saying, "No, you can't give them pain medicine."

In cases when surgeons didn't perceive a threat of misconduct, incorporating the patient's subjective thoughts, emotions, preferences, and perceptions regarding their pain experience provided surgeons with supplemental information to adjust and tailor the pain regimen, thus honoring patient-centered care. Without practicing the art of medicine and incorporating subjectivity, surgeons were bound to their scientific decisions, which were not always sufficient or accurate in controlling every patient's pain. Dr. Gert, for instance, resisted using definitive words like "always" and "never" to describe his decision-making in medical practice, inferring that individualized medicine is flexible. Surgeons are obligated to balance the science and art of pain management, and honoring these two dichotomous approaches presented conversational challenges when prescribing opioids.

Boundary re-negotiation

As professionals who subject their patients to bodily harm, surgeons are bound to a responsibility to alleviate pain resulting from a surgical incision or traumatic injury, but not injuries or conditions outside their scope of care. At the start of their prescribing relationships, surgeons defined evidence-based post-surgical prescribing windows, typically ranging from two to four weeks. However, patients whose pain needs persisted after the post-surgical prescribing window confounded the surgeon's scientific and evidence-based knowledge. These extenuating circumstances put surgeons in compromising positions in which they revised their standards and adjusted relational

boundaries. In these lingering cases, subjective judgment contradicted and subverted scientific guidelines, forcing the surgeons to formulate their decisions on subjective judgment during interactions. Patients often reported persistent pain without any objective evidence or medical indications to substantiate their claims. These situations represented a significant tension in accomplishing the concurrent communicative goals of operating on the basis of science and individualizing care through subjective or interpretive measures. Although rare, Dr. Irma referenced cases when an adverse or unexpected outcome from a surgery led to continuous opioid-providing arrangement between a surgeon and a patient:

Occasionally in the world of surgery we will have chronic patients that you will see, maybe one out of every 100, that um will get chronic pain medication from you because they are your disaster you created. Then you end up being their pain provider.

Further, allowing subjective judgment to supersede scientific guidelines in prescription decision-making placed surgeons in precarious situations in which they are driven by compassion and sympathy rather than sound scientific evidence and safe practices. Making exceptions and extending prescribing boundaries to show compassion were strategies for responding to a patient reporting continuous post-surgical pain. Surgeons reported bipolar approaches to handling this collision of art and science during patient consultation. As an example, Dr. Arlene described the prescribe-or-deny dilemma and her personal standpoint that surgeons should terminate the relationship rather than accommodate patients for pain lingering post-surgery:

Everyone gets real uncomfortable, so the attendings will be like, "Okay just write them like 10, bridge them over, but no more." But they come back and you write them 10 more. I don't know. I don't believe in that, I think you just say no ... because as a surgeon, I am not your primary caregiver. I see you for one isolated problem and after your isolated problem with me is done, I don't think I need to

be managing your pain. The pain is not the issue you are seeing me for, you saw me for something else. And I feel like a primary caregiver, someone who is going to see you more regularly and be able to follow you up and see what has happened to you, that's the person who needs to be addressing these issues. That's another thing, actual verses perceived, which is hard. But you kind of just have to go by what you feel, what you feel comfortable with. Sometimes you're just not comfortable writing that much pain medicine a day. So you just don't.

Echoing the position of Dr. Arlene, Dr. Lee reflected on a recent scenario involving a patient who returned to the hospital seeking prescriptions after the post-surgical prescribing window had lapsed. After reviewing the patient's medical history, he questioned another surgeon's decision to appease the patient, basing his opinion on evidence, as well as his subjective construal of the patient's intent:

So they called the on-call people and through a matter of getting through the person that needed to be talked to, said they were out of pain medications and needed more. Kind of —the chief on service at the time agreed to write prescriptions and arranged for him meet actually down here in the lobby and give them prescriptions for more pain medications, both opioid and non-opioid. While I wasn't the person, it felt a little strange for me because I looked back through what they got upon discharge, and it should have lasted them more than the time, the one week after discharge. While wasn't technically my name on the prescription or anything involved, it still [...] just felt off. That person could have waited for their clinic appointment the following week. They should have had enough pain medication that should have lasted them if they were taking it like they were supposed to. So that was kind of, and reading back on that person further, they were admitted to the trauma service because they were in a car accident while they were high. So, it's just like, "I'm just giving you more medications that will get you high." It just wasn't a great situation all around.

When scientific evidence and clinical experience failed to explain ongoing post-surgical pain, surgeons managed uncertainty and a lack of objective evidence by placing greater emphasis on the "art" of medicine in prescribing conversations. In individualizing care and respecting patient input, surgeons demonstrated flexibility in their prescribing boundaries and sought middle ground to reconcile the patient's subjective experience through a scientifically valid directive, such as refilling a prescription or recommending a

specialized provider. In some instances, surgeons qualified a “last-ditch” effort to demonstrate compassion in refilling a prescription, finding a compromise with the stipulations that their action signaled the official termination of the prescribing relationship. Dr. Katia described a negotiation process wherein she struck a balance between clinical judgment and attending to the individual needs of the patient, inferring that her willingness to acquiesce granted her freedom from the obligation to prescribe in the future:

And then what I do is try to talk to the patient about kind of weaning off. So if I finally get to the point where I say, “You know, I understand you may still be in pain, I am going to give you another prescription, but I want you to start working toward weaning off of it then talking about adding in other non-narcotic things to help them wean off of that.” So adding in ibuprofen and Tylenol, and say, “Hey, maybe it’s time to start trying those when your pain’s not as bad and just using this for when your pain is worse.” And I think that can help, one, set the patient’s mind to the fact that if maybe all my clinical judgment is wrong and they are just using me for getting more pain medicine, then at least I’ve had that discussion that this is going to be the last time. And two, I’m not neglecting the patient in front of me and hopefully helping them through it, helping them get through this time.

Framing decision-making on functionality

In the absence of quantifiable, objective measures of pain intensity, the surgeons founded pain management decisions on the patient's ability to perform functional goals. Acknowledging numerical rankings and subjective descriptions of pain were contingent on perceptions and unreliable in practice, surgeons turned to functional goals as more accurate and reliable indicators of individualized pain. Functionality was a mediating measurement tool that allowed surgeons to balance scientific objectivity and humanistic medicine. When science and subjectivity collided in patient conversations and decision-making, surgeons dialed into the physical manifestations of pain, such as limitations in mobility and breathing, as indicators of uncontrolled pain. These circumstances signified

reverting away from the patient's subjective participation in characterizing the degree of pain and back to evidence-based measures evaluated by the surgeon. Dr. Gert said forming decisions on functionality served as a reasonable middle ground that forced patients to accept some level of pain as part of their recovery experience:

As a result of that, where we kind of meet with them is where they can function, where they can tolerate the amount of pain they have, because it's not something that can be objectively measured and do it safely. So that's the biggest challenge and that's kind of what you have to explain to them.

Using functionality as a pain severity measuring stick, surgeons evaluated a patient's range of physical functioning against subjective reports of pain control or requests for additional medication during recovery. Surgeons also communicated to patients that functionality was a more accurate indication of pain than subjective explanations or estimates. Dr. Ophelia used the functionality measurement as a tactic for helping patients bring their pain experienced into perspective:

Patients in the hospital, it's kind of every day, kind of reinforcing, this is your whole pain plan for today, and then every day I walk in and ask them if their pain is controlled. I don't ask them to rate it on a scale from one to 10 because I don't find that helpful for me. Because it's such a subjective thing and people, you know, their numbers, a lot of time, don't line up with reality. So my personal scale is are you taking big deep breaths and how far did you walk yesterday? So if I say, "Is your pain controlled?" And they say no, then I'll say well, "How high are you getting on the incentives spirometer?" And then if they are getting to 1,000, then that means it's probably well-controlled. Then I say, "How many times did you walk yesterday?" And if they say I walked downstairs to smoke three times, you know as long as they are — obviously I don't advocate for them smoking — but if your pain is controlled enough that you can walk down to the sidewalk on [Street Name] and smoke a cigarette, your pain is pretty well controlled. So, mine's more of a functional observation.

Denying a counselor's role

In the interest of acting with professionalism and respecting the protected nature of the surgeon-patient prescribing relationship, surgeons were also careful to avoid

provoking conflict in communication or casting judgment on patients, even when they detected red flags of misuse behavior. They used suggestive, implicit dialogue to tease out past opioid use information, careful not to compromise the stability of the relationship by inferring an abusive behavior. They stayed out of the murky territory of opioid misuse and abuse counseling, which was another example of drawing boundaries distinctive to the type of service they provided. With the inability to control patient behavior after discharge, they adopted a laissez faire attitude once the patient was released into society with an opioid prescription. When the patient presented signs of misuse behavior, they chose their words with caution, avoiding offensive or threatening statements to protect their identities as a medical professionals. Their detective work to elucidate the patient's baseline tolerance, intentions, and risks for improper opioid use constrained the relationship goal of peacekeeping and identity goal of conducting their work with the appearance of professionalism. To gain patient buy-in and cooperation, as well as preserve their professional identity in the eyes of their patients, surgeons neglected accusatory language that might ostracize the patient from the relationship. For Dr. Vince, removing the word "addiction" or other threatening terms from his vocabulary was fundamental to preserving the patient's sense of respect and dignity:

Me personally, I don't use it commonly because I think it's a word that becomes a distraction point for people. Because once you use that, then uh, it brings about a certain number of assumptions with them, and it directs your conversation. So you can use things as a substitute (for addiction), such as "frequent usage" or "long-term usage," or I say commonly, "Your body becomes used to these things." That way, you're having a conversation with them; you're not name-calling or pointing a finger. Because once you introduce that term or definition, like I said, people will have a certain number of assumptions that go along with that and you are really trying to establish a rapport because these are compromising scenarios and people are going to be on the defensive when they come into those kinds of settings, because you will have just operated on them, which can be very threatening.

Other surgeons, such as Dr. Jose, incorporated subtle admonitions during dialogue with patients when he suspected the potential for aberrant behavior. Even when medical records or visual evidence indicated past misuse or abuse behaviors, Dr. Jose exercised restraint in drawing conclusions about a patient's need for an opioid. He described a portage of responsibility, passing the burden of responsibility to the patient after discharge. Dr. Jose believed patients were liable for their actions and opioid use behaviors once they left the hospital. During discharge conversations, Dr. Jose inserted phrases and warnings to implicate the patient was now fully responsible for their pain management decisions:

We'll drain people's abscesses on their arms, and that is obviously a result of them trying to shoot up. They'll have a track mark up their arm and they'll have an abscess or something, and so you know there's some abuse history. And those are the kind of people, you know, I tell those people, "These are to treat your pain, what you do with them is what you do with them." I don't find myself very often like counseling people, like, "Hey don't crush up your meds. Don't abuse them." I actually very rarely ever say that.

For Dr. Harvey, a reticence to confront patients or use threatening language in clinical discourse was a matter of civility and professionalism. He acknowledged moments in his practice when he wanted to confront brazen misuse behaviors or advise against the using opioids for recreation. However, communicating his surgeon's identity required him to withhold his biases and respect the patient's right to dignity and civility by repressing his accusations:

I've told patients that, more inexplicit, like, "Okay this is not for — you really can't just take these all at once, you need to make it last this long of time." Saying something like, "Don't crush it up and inject it," that is a little uncouth and unprofessional. Or I don't know, "Don't sell this one the street." Saying stuff like that. Why do I not say that? Because it's not professional, it wouldn't be.

Because of the primacy of preserving an identity and relationship, surgeons felt restricted in their ability to counsel patients on the proper use of opioids outside the hospital setting. While many developed communicative strategies to manage multiple goals in patient interactions, the entanglement of detective work, relationship fortification, identity preservation, and striking a balance between practicing scientific and humanistic medicine resulted in prioritizing certain attainable goals while abandoning others of equal importance.

CHAPTER FIVE: CONCLUSION

The current qualitative analysis generated a rich description of the identity, task, and relationship goals surgeons managed, prioritized, and negotiated during conversations with patients. In addition, this study identified tensions among compulsory goals during opioid-prescribing conversations in the surgical context. These findings suggest that surgeons balance an objective, scientifically informed approach to pain management with the humanistic “art” of medicine, using subjective interpretations of the patient’s individualized to moderate evidence-based formulas or protocols for pain management. In addition, a surgeon’s effort to project a professional identity intersects with relationship goals, such as building trust, rapport, and solidarity, as well as avoiding discordance in the therapeutic relationship. Conducting clinical detective work, which included a baseline pain level, stratifying patients based on risks and anticipated outcomes, assessing opioid competence, and detecting signs of suspicious behavior, overlap and constrain relationship and identity goal attainment in their prescribing conversations. Finally, surgeons are bound to a pledge of beneficence, demonstrating compassion and mercy, as well as a commitment to prescribing with vigilance to contain a widespread societal problem.

Trauma surgeons fulfill a duty to beneficence and a moral obligation to their patients in prescribing opioids for intense pain resulting from an injury or operation. However, surgeons are the second-highest opioid prescribers in the medical profession (Daubresse et al., 2013) and their prescribing decisions have relevancy to the amount of opioids dispensed in society and implications for containing a national prescription drug epidemic. The 17 surgical residents and fellows who interviewed for this study described

a medical context in which opioids were regarded as legitimate therapies for helping patients recover from inevitable pain. These early-career surgeons provided a descriptive account of the entanglement of interests, responsibilities, and objectives while communicating patients about opioids in an acute care setting.

While previous studies have examined prescribing conversations in primary care settings, this study extended the multiple goals perspective to explain the nature of prescribing conversations in acute care, specifically within a trauma and surgery unit. The multiple goals framework posits that successful communication occurs when individuals are able to achieve multiple task, identity, and relationship goals in the same communicative exchange. In applying multiple goals theory, the sample described challenges in a distinctive medical context where practitioners regard opioids as indispensable medical resources. The results delineated specific goals related to the surgeon's professional identity, relationship with the patient, and detective work tasks in clinical consultation, which constrained the achievement of multiple goals in fleeting interactions with patients. Given that acute care surgeons will continue to utilize opioid therapies for acute pain management in the future, these findings contribute to an understanding of challenges in acute care opioid-prescribing conversations and describes specific task, identity, and relationship goals attempted during such conversations.

Although they acknowledged inherent risks and addictive properties, surgeons sanctioned opioids as appropriate, safe, and superior therapies for treating surgically induced pain within the confines of managed surgical recovery. They justified opioids as proper indications for the types of pain they treated, but were also attuned to institutional and governmental recommendations calling for restraint in opioid prescribing across the

medical profession. Their communication with patients was overshadowed by the knowledge that all medical providers assume a responsibility to exercise sound judgment in dispensing opioids, even for legitimate indications such as acute post-surgical pain. They also alluded to a professional interest in minimizing opioids, proposing alternative and multi-modal therapies, or deterring a patient from demands for specific narcotics. Surgeons also reported unique obstacles to simultaneous goal achievement during opioid-prescribing conversations. Relying on a combination of medical knowledge, subjective insight, and intuition, they attempted to cultivate bonds of trust with patients while gathering sufficient evidence to formulate a safe yet effective pain treatment regimen.

Additionally, surgeons protected their identities by drawing firm prescribing boundaries. Boundary establishment was recurrent feature of opioid-prescribing conversations in this sample. Surgeons expected to terminate the prescribing arrangement with their patients within a strict post-surgical recovery window, reserving their authority to prescribe potent opioids for acute pain caused by surgery or a trauma incident. Surgeons discussed these boundaries with patients early in the pain treatment program or prior to surgery to put up a protective shield against the tendency to over-prescribe. They were working against a time clock bound by their scientific projections of recovery, and the immediacy of surgery and transient nature of their relationships hastened the entire medical experience. This time limit on the prescribing relationship exacerbated the pressure to resolve pain and deny patients an ongoing prescribing relationship despite cases in which a patient's pain persisted beyond the time frame the surgeon deemed appropriate.

Our sample also called attention to communicative conflict when scientific goals intersected or impeded practicing the art of medicine. In balancing scientific evaluation with subjective observation, surgeons were susceptible to inclining toward one approach or another, although they made earnest efforts to incorporate both approaches as they interacted with patients. However, depending on the circumstance, either scientific methods or artful approaches dominated their decision-making and communication processes. The sample emphasized the value of incorporating subjective judgment and tapping into instinct while determining the safest pain management regimen, but were trained to follow formalized protocols and evidence-based approaches to pain management. When surgeons adhered to scientific approaches to pain management, they struggled to tailor the treatment program and incorporate patient feedback into their decision-making. Scientific approaches, while effective and indiscriminate, were not always compatible with the subjective side of medicine, which incorporated subjective evidence and patient feedback into the pain management equation.

Furthermore, surgeons who prioritized the art of medicine and incorporated subjectivity in decision-making encountered difficulties reconciling their decisions with standardized approaches on the scientific end of the practice continuum. Humanistic approaches to pain management honored patient-centeredness, and surgeons were aware of the inherent benefits of fostering a therapeutic partnership with their patients by attending to subjective input, feelings, and preferences for treatment. Patients who felt they could trust their surgeon were more likely to comply with the treatment plan and defer to their surgeon's expertise. However, in circumstances when subjectivity confounded scientific knowledge, surgeons re-negotiated protective boundaries, which

were originally established to protect their identities and reputations as prudent prescribers. Surgeons made these adjustments to pacify patients whose pain persisted beyond their expected time frame or accommodate requests for a higher potency opioid if they perceived acquiescing to a patient would facilitate the attainment of more salient medical goals, such as the patient's cooperation. This evidence suggests balancing the art and science of medical practice poses challenges to surgeons as they communicate with patients about opioids and pain management decisions. The surgeons reported learning the art of pain management through trial-and-error and clinical experience, whereas their scientific knowledge was developed through formal training. If surgeons are expected to master both scientific and humanistic skills, academic medical institutions must offer sufficient education and experiential training opportunities. Specifically, training programs should address moments in surgical practice where these two approaches intersect and impeded on another, requiring a compromise, negotiation, or an adjustment of boundaries.

Our sample also illuminated the intricate detective work involved in pain management conversations, as multiple task goals overlapped in short-lived patient interactions. Surgeons attempted to collect background information to estimate a baseline pain tolerance level, detect social or behavioral risks for aberrant opioid use, stratify patients based on perceived risks and expected recovery trajectories, and correct misconceptions regarding the use of opioids for post-surgical pain. Completing these tasks in conversation enabled surgeons to make informed decisions regarding safe and individualized prescription regimens. However, surgeons cited limited time to discuss opioids with the patients and a priority to attend to the patient's emergent medical

problem, not the plan to resolve pain in the aftermath of surgery. The flurry of detective work that must be accomplished to make weighty decisions about opioid prescriptions represents another challenge in surgical care. Surgeons are overburdened with a multitude of conversational tasks, and attention to responsible opioid prescribing is secondary to emergent health problems. In addition, concentration on task goals in opioid-prescribing conversations may serve as a distraction or impediment to patient-centeredness and relationship fortification. While surgeons cited interrogative goals, such as collecting information and probing for responses, they also attempted relationship-building goals, which were two oppositional communicative goals taking place in a single conversation. These findings suggest surgeons need more time allocated for opioid-prescribing consultation, or new strategies to expedite the achievement of complex goals in pain management communication.

Another possible timesaving solution is educating the public about opioids or offering resources about opioid usage, risks, and safety prior to surgical admission. Surgeons conveyed a detective work goal centered on educating patients about proper applications for opioid therapies and clarifying misperceptions about opioids. In some cases, the surgeons were tasked with mitigating a patient's fears and anxieties of becoming addicted to opioids, which expended precious time allotted in their schedule for patient consultation. Many patients were confused about opioid information they saw through television advertisements, which had a normalizing effect, while others understood the severity of the opioid epidemic and the risk of addiction through lived experience and exposure in their communities. Patients must also have some accountability in their opioid-prescribing decisions, but education must precede the

involvement in these perilous decision-making processes. Providing scheduled surgery patients with resources about opioids and their involvement in the prescription decision-making might improve the flow of care and preserve time to achieve other primary tasks in opioid-prescribing conversations.

While surgeons described goal collision in opioid-prescribing conversations, they responded by ordering goals by priority, adapting their conversational approaches, and enacting communicative strategies to maximize goal achievement during the interaction. For instance, many surgeons saved time by stratifying patients to pre-conceived categories representing a level of risk or expected outcome. Cognitively assigning these patients to categories streamlined the conversation and helped surgeons anticipate obstacles in controlling or resolving pain problems. Experienced surgeons used conversational pathways based on previous cases and common dialogue with patients to collect information and guide prescription decision-making. Surgeons also developed scripted dialogue and used implicit warnings to preserve the stability of a therapeutic partnership while relaying the inherent risks of opioids to patients discharged with a home script. At discharge, they adopted a *laissez-faire* approach to their patients, relinquishing their control and authority over the patient's personal usage of opioids outside their domain of care and control. With knowledge of the surgeon's competing obligations and objectives in opioid-prescribing conversations, surgical preceptors should adopt tactics and strategies arising from clinical experience to resolve goal tension in conversations about prescriptions.

Finally, surgical preceptors and medical educators must revisit the implications of upholding a broad definition of patient-centeredness in the acute care setting. Often the

demands of patient-centered care constrained the surgeon's ability to exercise best judgment and undermined protective boundaries for opioid prescribing established at the front-end of care. While surgeons shouldn't be exempt from engaging patients in medical decision-making and attending to preferences, the patient-centered approach in surgical recovery must differ from that of providers in outpatient or primary care settings. These specialists are bound by time limitations to counsel patients, a duty to demonstrate vigilance in prescribing opioids, an interest in maintaining professional dignity, and a primary task of resolving the patient's physical problem. Surgical preceptors should temper instruction on patient-centeredness with realistic expectations for conversing with patients about pain management. In some cases, patient-centered objectives constrained or obviated the surgeon's ability to exercise their expert medical opinion. As many interviewees reiterated, in surgery, patient-centered care should mirror a surgeon's expert medical opinion. Surgeons, not patients, can plot an evidence-based path to recovery that minimizes risk and prevents unnecessary dispensing of substances that are wreaking havoc on society at large.

Limitations

This study applies a relevant communication theory to describe and explain an entanglement of communicative goals associated with prescribing opioids in acute care settings. While extending the multiple goals framework to an unprecedented context, the study also produced translational findings to inform patient-provider communication in the surgical context. The study was strengthened by the specificity and distinctiveness of the sample. I was granted access to early career surgeons entrenched in a patient population with complex surgical requirements and a prevalence of opioid addiction. As

the next generation of highly skills specialists in the medical field, this sample demonstrated a keen sense of awareness and moral responsibility to containing opioid epidemic. The sample was also unique in that these surgeons worked in a busy trauma unit, which serves victims needing urgent pain relief and surgical intervention. As a regional center specializing in life-threatening malignancies and complex surgery, the sample was also embedded in an intense training environment where opioid management was a presumptive aspect of every patient's case. These surgeons were frequently responding to life-threatening injuries and prescribing potent opioids in the aftermath of complex procedures. In the trauma care team, many of the opioid prescribing duties were assigned to surgeons in the first two years of residency, or interns. Because of these conditions, the sample represented an ideal population for collecting descriptive data about opioid-prescribing communication in the acute care context.

One possible limitation is the study's sample size at 17 participants, although the participants provided extensive interviews that were rich in detail and narrative reflection. Early in data analysis, I interpreted common themes among the data and linked codes to shared meaning, thereby reaching theoretical saturation. The purpose of qualitative descriptive analysis is to provide a "straight descriptive summary of the informational contents of data organized in a way that best fits the data" (Sandelowski, 2000, p. 339), and therefore, this research and theoretical application provides an in-depth explanation of what is happening in a particular communication context. The research established a foundation of knowledge for understanding the distinctive challenges related to achieving communicative goals in the acute care setting and formulating possible solutions to those challenges. Also, this study described opioid-prescribing conversations from the vantage

point of the prescribing surgeon, omitting the insight, perceptions, and experiences of the patient, which may provide a more coherent and accurate description of opioid-prescribing conversations.

Future Directions

This research also directs future investigations by specifying task, identity, and relationship goals surgeons seek to attain during opioid-prescribing conversations. Health researchers should conduct studies to further explicate the interplay of task, identity, and relationship goals during opioid-prescribing conversations. Investigators should also explore goal salience in prescribing conversations, addressing how and why surgeons prioritize certain goals over others. In addition, future research should explore opioid-prescribing communication in other prescribing contexts, such as physical therapy, and examine how professionals in other medical contexts accomplish professional identity goals through opioid-prescribing conversations. Future investigators might further examine patient-provider relationship development in the acute care setting and propose communicative strategies to assist surgeons in cultivating strong therapeutic alliances in the transient period of surgical care. Finally, more research must address the concept of patient-centeredness and its viability across medical contexts. Explicating constructs underlying patient-centeredness and tailoring definitions to the acute care context may prevent goal tension and liberate providers to exercise the full extent of their prescribing authority.

Summary

In conclusion, trauma surgeons seek to accomplish multiple task, relationship, and identity goals when counseling patients about the use of opioids to treat post-surgical or

post-trauma pain. Overlapping task goals interfere with the simultaneous accomplishment of relationship and identity goals. Drawing temporal prescribing boundaries and asserting a professional identity constrains the surgeon's ability to fortify the crucial therapeutic relationship. Scientific, evidence-based approaches to pain management intersect with practicing the art of medicine, forcing surgeons to make compulsive decisions and re-negotiate boundaries intended to safeguard prescriptions. The entanglement of goals in opioid-prescribing conversations complicates the job of surgeons, who must reconcile multiple objectives, responsibilities, identities, and imperatives as they attend to patients recovering from severe bodily insult or injury. These findings provide a foundation for solving communication problems in the acute care setting and implementing communication strategies that empower surgeons to prescribe in a manner that is ethical, evidence-based, and beneficial to their patients and society at large.

APPENDIX A: PROTOCOL

Introduction: Thank you for taking time to interview today. As a healthcare provider, you are attuned to the prevalence of opioid misuse and abuse that has been referred to as the “opioid epidemic.” You also know through your clinical experiences in the trauma department that patients have a legitimate and imminent need for opiates to alleviate their pain. The purpose of this interview is to better understand how you collaborate with patients to make clinical decisions about the use of opioids to treat pain. The statements you make during this interview are confidential, and your identity will be protected. In compliance with HIPPA regulations, please do not discuss any patient identifiers during this interview, including name, address, or demographic information. You make speak generally about patient cases.

1. Tell me about a time when you felt conflicted about prescribing an opioid or certain dosage of opioid to a patient under your care.
 - a. How did you work through this conflict? Were there any strategies you used to resolve this conflict?
2. When you discuss opioids with patients, what are the objectives you are trying to accomplish?
 - a. What do you feel the patient should know about the use of opioids after a traumatic injury?
 - b. What is the healthcare professional’s responsibility in communicating opioid risks to patients?
3. Describe the individual process you use in a clinical consultation to assess whether an opioid must be introduced or continued for the maintenance of trauma-related pain?
 - a. How do you adjust this process to accommodate each individual patient’s needs and circumstances?
 - b. How do you incorporate or manage information about the patient’s drug use or prescription drug history while making these decisions?
 - c. How do you address the risks associated with introducing or increasing an opioid therapy for pain with your patient?
 - d. How do you know or receive validation that you have made the right prescribing decisions for your patient?
 - e. With whom do you consult and collaborate to verify your decisions?
4. Do you collaborate and honor the concept of patient-centered care, or shared decision-making, when discussing the decision to reduce or eliminate an opioid for pain, and how?
 - a. How do you communicate the risk factors of becoming dependent or digressing to aberrant behaviors when using an opiate for relief?
 - b. Are there any red flags you look for in the consultation that signify concern for misuse or abuse down the road?
5. What resources outside the clinic guide your prescribing practices in the patient-provider encounters regarding opioid drugs?
6. What have I not asked that you would like to mention about opioid prescribing during trauma

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Elizabeth Troutman Adams

University of Kentucky College of Communication and Information

EDUCATION

M.A. University of Kentucky (expected graduation May 2017)

Mass Communication

Emphasis: Health Communication

Advisor: Elisia Cohen, Ph.D.

Thesis: *Managing Multiple Goals in Opioid Prescription Communication: Perspectives from Trauma Physicians*

GPA: 4.0

B.A. University of Kentucky (2007)

Journalism - Editorial

English

GPA: 3.64

RESEARCH INTERESTS

Applied health communication with an emphasis on behavior-change interventions; modeling pathways to health behavior change; patient-provider communication; persuasive message design in health interventions; theory building in health communication; community-based participatory research; sociocultural determinants of message receptivity and behavioral response; identity and narrative in persuasion; illness narratives; and mixed research methods.

Context areas of interest include behavioral disorders, including opioid addiction, personalized and precision medicine, and dietary or lifestyle modification to reduce chronic disease risks.

RESEARCH

Adams, E., Olson, M., & Hardin-Fanning, F. (2016). Sociocultural Influences of Dietary Behavior Change in Appalachian Food Deserts: A Thematic Analysis. Poster presented at the 2016 University of Kentucky Center for Clinical and Translational Science Conference, Lexington, KY.

Adams, E., Hardin-Fanning, F., Frisby, B., & Olson, M. The Role of Trust and Self-Disclosure during an Individualized Dietary Intervention. Paper presented at the 2016 Kentucky Communication Association Conference, Bowling Green, KY.

Adams, E., Cohen, E., & A. Bernard. Trauma Surgeons' Multiple Goals in Opioid Prescription Communication. *Submitted paper to National Communication Association Conference, November 2017.*

Adams, E., Frisby, B., & Hardin-Fanning, F. Interpersonal Solidarity, Trust, and Disclosure in Patient-Provider Communication: A Study of an Appalachian Intervention. *Accepted as poster to D.C. Health Conference in April 2017.*

Ivanov, B., Parker, K., Wombacher, K., Watterson, T., Merchant, M., & **Adams, E.** Qualitative Analysis of Addiction using Inoculation Theory. *Transcriber for research. In process.*

ACADEMIC TEACHING AND PROFESSIONAL INSTRUCTION

Fall 2016, Spring 2017 Guest Lecturer, University of Kentucky College of Communication and Information, Integrated Strategic Communication (Social Media and Media Relations)
February 2017 Media Training, College of Public Health Faculty Lunch and Learn

CONFERENCES

National Rx and Heroin Summit, March 2016, Atlanta, GA.
Kentucky Communication Association, September 2016, Bowling Green, KY.
National Communication Association, November 2016, Philadelphia, PA.

DEPARTMENT SERVICE

Spring 2016 Volunteer, Kentucky Conference on Health Communication, Lexington, KY.

FUNDING

Thesis research funding awarded from the UK Department of Surgery Research Fund, Fall 2016

PROFESSIONAL HISTORY

University of Kentucky Public Relations and Marketing

January 2014 – Present

Title: Senior Public Relations Specialist, UK Medical Campus

Alltech

October 2012 – December 2013

Title: Public Relations Coordinator

American Association of Equine Practitioners (AAEP)

October 2008 – October 2012

Title: Publications Coordinator

Other publications (professional writing and editing):

- The Lexington Herald-Leader
- The Oldham Era
- Hobby Farms Magazine
- Urban Farmer Magazine
- Business Lexington
- Tops in Lex Magazine
- The Bourbon Review Magazine
- The Horse Magazine
- KY Forward (news magazine)

PROFESSIONAL ASSOCIATION MEMBERSHIP

National Communication Association, 2016 – Present

Kentucky Communication Association, 2016 – Present

University of Kentucky Communication Graduate Student Association, 2016 – Present

Public Relations Society of America Member (PRSA), 2008 – 2012

Public Relation Society of America - Thoroughbred Chapter, 2008 – 2012

University of Kentucky Women’s Forum, 2015 – Present

COMMUNITY SERVICE/PHILANTHROPY

Giving to Extreme Medical Missions Fundraiser/Athlete – October, 2016

Member of the Schwartz Center Rounds® Organizing Committee at Kentucky Children’s Hospital

Moveable Feast Volunteer, Weekly Driver, 2016 – Present

Volunteer for GleanKY, feeding underprivileged nourishing meals, 2013 – Present

Love on a Leash/PAWS to Read Pet Therapy Team, 2014 – Present

Vineyard Community Church Hospitality Leader, 2014 – Present

Member of the Ronald McDonald House of the Bluegrass Community Awareness Committee, 2009 – 2012

Carnegie Center for Literacy and Learning Afterschool Tutor, 2008– 2012