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Nurse Manager Perceptions of Just Culture in the Hospital Setting

By

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### **THESIS**

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### Introduction

Medical errors threaten patient safety and are associated with increased mortality (Makary & Daniel, 2016). The 1999 Institute of Medicine (IOM) report, "To Err Is Human", reported an estimated 98,000 deaths due to preventable medical error, annually, in the United States (Kohn, Corrigan, & Donaldson, 2000). These errors are human errors, but they may be the result of deficiencies in the healthcare system. Distinguishing individual error from institutional system error is a goal of hospitals that implement just culture principles. Just culture is a segment of safety culture that focuses on identifying accountability for delivering high quality care, as well as accountability for errors (Bashaw & Lounsbury, 2012). Distinguishing blameless from blameworthy error is a fundamental concept in just culture (Reason, 2000). Reporting error assists institutional and individual learning and is critical to quality improvement in hospitals (Marx, 2001). By creating a fair and just culture, hospitals hope to improve rates of error reporting and, therefore, improve safety.

Although implementing principles of just culture has been popular amongst high reliability institutions, such as hospitals, for two decades, there is no universal definition of just culture (Petschonek, Burlison, Cross, Martin, Laver, Landis, & Hoffman, 2013). Still, some research attempts to identify the dimensions of just culture and study its impact on hospital quality and safety. It is the healthcare workforce that must establish the fair and just culture that drives quality and safety within healthcare organizations. Personnel affected by just culture practices include nurses, physicians, pharmacists, laboratory technicians, physical therapists, dentists, and other health professionals. According to the U.S. Bureau of Labor Statistics, there are over 3 million registered nurses in the United States, placing nursing as the largest fraction of

the healthcare workforce (U.S. Bureau of Labor Statistics, 2019). Despite nearly two decades of promoting the development of fair and just culture in the hospital setting, there is little research specific to nurse knowledge and utilization of just culture principles. With nurses comprising the largest portion of the healthcare workforce, there is a need for more research to examine the perceptions and impact of just culture in nursing.

#### **Review of the Literature**

This literature review includes research studies that focus on healthcare workers' perspectives related to patient safety culture in hospital inpatient settings. Studies that evaluated just culture amongst healthcare professionals in hospital settings were included. English language citations, from any country, were evaluated. Citations were then included based on study participants (nurses had to be participants), location (hospital inpatient), and content (addressed safety culture). There were no limits set for publication dates. The literature search was performed in the PubMed database, on January 18, 2020. A broad search was performed using the term "just culture", which yielded 120 citations. The number of returns was narrowed by searching "just culture" AND hospital, resulting in 59 citations which were evaluated for inclusion. Abstracts for all citations were reviewed and 45 citations were statements, quality improvement projects, or opinion pieces. The remaining three articles from the initial search, and two articles that were chosen by hand searching were chosen for review.

Of the five chosen studies, two were quantitative, two were mixed methods, and one study was qualitative. Two were experimental studies that used convenience samples. One of the experimental studies was quantitative (David, 2019) while the other was mixed-methods (Vogelsmeier, Scott-Cawiezell, & Miller, 2010).

Three studies evaluated safety culture within the context of the Agency for Healthcare Research and Quality (AHRQ) Hospital Survey on Patient Safety Culture (HSOPS) (Edwards, 2018; Richter, Scheck McAlearney, & Pennell, 2015; Vogelsmeier et al., 2010). The AHRQ Surveys on Patient Safety Culture (SOPS) are publicly available surveys that healthcare organizations may use to evaluate various aspects of their safety culture (SOPS, n.d.). Participation in these surveys is voluntary, as is reporting the data to the AHRQ database (SOPS, n.d.). Both Edwards (2018), and Richter et al. (2015) performed a secondary review of national HSOPS data, however Edwards provided respondents an additional survey that asked if hospitals had adopted just culture, and only hospitals that had adopted just culture were included. Vogelsmeier et al. (2010) sampled from hospitals in Missouri and used the HSOPS with an additional survey containing three open-ended questions.

David (2019) correlated organizational culture with safety culture. This study used the Competing Values Framework to evaluate organizational culture and the Just Culture Assessment Tool (JCAT) to evaluate safety culture at two different hospitals in the same geographical region. The samples had comparable size, structure, payer mix, and patient socioeconomic status. The JCAT tool includes six subscales that are potential dimensions of just culture: feedback and communication, openness of communication, balance, quality of event reporting process, continuous improvement, and trust.

Two studies sampled leadership (Freeman, Morrow, Cameron, & McCullough, 2016; Vogelsmeier et al., 2010), while the others sampled both leadership and frontline staff. The sole qualitative study reported on interviews with just 9 nurse managers (Freeman et al., 2016).

These studies did not report participants' age, gender, race, or ethnicity. Respondents were staff nurses, nurse managers, hospital executives, physicians, pharmacists, and other clinical staff.

### **Perceptions of Safety Culture**

Three studies examined perceptions of hospital safety culture amongst hospitals that had implemented JC principles. One study evaluated perceptions of safety culture in hospitals that had already adopted JC, by analyzing data from the HSOPS (Edwards, 2018). The other two studies evaluated perceptions of safety culture before and after implementing JC training. Vogelsmeier, et al. (2010) provided nurse leaders JC training at four different levels of intensity and frequency and examined perceptions of safety culture before and after training by evaluating responses to the HSOPS. Similarly, David (2019) studied perceptions of safety culture before and after training, but the training provided was identical for all participants and the survey tool was the JCAT. The overall perceived impact of JC training on safety culture indicated a positive trend in all three studies. Edwards (2018) reported that 53% of respondents perceived a positive or strongly positive impact of JC on safety culture, but since it was a cross-sectional study, no association was made regarding perceptions of safety culture prior to implementation of JC principles. David (2019) found that a hospital's organizational culture archetype affected perceptions of safety culture after JC training (David, 2019). Group culture was associated with improvement in all six dimensions of JC, while hierarchical culture had improvement in three dimensions and reduction in three dimensions (David, 2019). The David (2019) study is only the second study to report use of the JCAT. Vogelsmeier et al. (2010) found that hospitals that received the most JC training reported lesser improvement in perception of safety culture than

hospitals that received the least training, though both groups had a positive association. In addition, hospitals that received the highest level of training had the least positive perception of safety culture and those with the least training had the most positive perception of safety culture (Vogelsmeier et al., 2010). Responses from the hospitals that received the most training aligned with nurse responses on the HSOPS, whereas responses from the least trained respondents did not correlate with the HSOPS database (Vogelsmeier et al., 2010). These results likely indicate that hospitals that chose to receive the most JC training had practical insight of existing safety culture, prior to training. This is further supported by belief of subjects who received the least training that there were none or few safety problems present prior to training (Vogelsmeier et al., 2010). The HSOPS is a validated tool that has been utilized extensively to evaluate safety culture, but it is not specific to evaluating the dimensions of just culture. The specific dimensions of just culture are not yet well defined. Still, these studies indicate that implementing JC principles in healthcare improves perceptions of safety culture amongst healthcare professionals.

#### **Perceptions of Error Reporting**

Perceptions of error reporting were examined in three studies. The study by Edwards (2018) did not tabulate results for rate of error reporting but did report in results that 9% of respondents indicated perceived rate of self-reporting were not affected by having a just culture. Perceptions of frequency of error reporting were addressed in the other two studies. Hospitals that received the least JC training reported high perceived rate of error reporting before and after training whereas the hospitals that received the most JC training reported an unchanged overall lower perception of rate of error reporting (Vogelsmeier et al., 2010). Again, data from the more highly trained group aligned with national data from the HSOPS (Vogelmeier et al., 2010). The third study reported perceived error reporting rate as it correlated with specific dimensions of

safety culture. Though the study did not examine JC, specifically, some dimensions of safety culture that were examined align with JC dimensions. While the first two studies reported overall perceptions of error reporting, Richter, Scheck McAlearney, and Pennell (2014) reported a directional association between some just culture dimensions and perceived frequency of error reporting. They found management support, error feedback, and non-punitive response to error to be associated with higher frequency of error reporting (Richter et al., 2014). Communication openness was negatively associated with frequency of error reporting (Richter et al., 2014).

Though Richter et al. (2014) looked at national HSOPS data, which included data from hospitals that have implemented JC and those that have not, results were synthesized because the study organized data into defined subgroups that correspond to JC dimensions identified in the JCAT.

Data from these studies suggest that implementation of JC principles is correlated with the perception of higher rates of error reporting.

#### **Barriers to Error Reporting**

The fundamental concept of JC is shared accountability for quality and safety between individuals and an organization. Error reporting is a key component of both quality and safety measures. Yet, underreporting of errors is a persistent problem in healthcare (Poorolajal, Rezaie, & Aghighi, 2015). Barriers to error reporting were reported in two studies (Morrow, Cameron, & McCullough, 2016; Vogelsmeier et al., 2010). Both studies identified fear of blame as a dominant barrier to error reporting. Respondents from hospitals that engaged the most in JC training recognized staff reluctance to report error and identified that staff fear blame (Vogelsmeier et al., 2010). Likewise, nurse managers stated that fear of blame and punishment were common concerns among staff (Freeman, Morrow, Cameron, & McCullough, 2016).

Despite nurse managers' attempts to shift away from a culture of blame, most expressed that it

was difficult to maintain. The Freeman et al. (2016) study was a small, qualitative study, but echoed results from other studies of barriers to error reporting (Gorini, Miglioretti, & Pravettoni, 2012; Rutledge, Retrosi, & Ostrowski, 2018). Among these studied groups, fear of blame and punishment persisted despite implementation of JC principles.

### **Project Purpose**

Establishing a just culture of safety has gained popularity in healthcare over the last two decades yet little research is available that explores the perception of just culture amongst nurses, who comprise the most populous singular profession within healthcare (U.S. Bureau of Labor Statistics, 2019). Nurse managers are tasked with responding to nursing error within hospitals and are the leaders who implement the principles of just culture to address nursing errors.

An exploratory qualitative study is being undertaken to begin to improve understanding of the role of nurse managers in implementing just culture principles when addressing nursing error. This study will examine nurse manager's perceptions and knowledge of just culture. The following are the research questions for this project:

- 1. How do nurse managers define just culture?
- 2. What are the implications of just culture for nurse managers as they strive to implement these policies?

A qualitative study is suitable method for collecting data pertaining to nurse manager's personal experience and perceptions.

#### **Methods**

### **Design**

The study was a cross-sectional, qualitative study, to examine hospital nurse manager perceptions and knowledge of just culture principles.

### Sample

Interviews were conducted with five qualified nurse managers for this pilot study. A convenience sample of nurse managers from hospitals in Sacramento, California, was recruited via email and phone calls, using publicly available data. Contact information for participants was sourced from hospital websites. Effort was made to recruit participants from diverse nursing units such as critical care, acute care, emergency, pediatrics, radiology, operating room, and post-anesthesia care. The inclusion criteria for participants were nurse managers and administrators with at least one year of experience in their current role. Participants had to have experience in applying principles of just culture in response to nursing errors. Nurse managers and administrators in their role for less than one year were excluded.

#### **Instruments**

A semi-structured in-depth interview guide was created, and pilot tested prior to utilization for the study (Attachment 1). Demographic data, including age, race, gender, education, years of nursing experience, and years of experience as a nurse manager, were collected at the start of each interview.

#### Procedure

Semi-structured interviews were conducted via telephone, in a private setting. The interviews were audio-recorded using a web application for audio recording. The interview questions in the interview guide were designed to address the main issues and provide follow-up questions, for clarification and to encourage participants to provide additional details they

wanted to share. This format allowed the interviewer to explore the participants' experiences and beliefs more thoroughly.

### **Data Analysis**

The interviews were automatically transcribed by the same web application that was used for audio recording. Any potentially identifiable information (e.g. names of individuals or work units) was redacted. Transcriptions were manually reviewed to ensure they were transcribed verbatim. Transcripts were read and manually coded for thematic analysis. Key insights regarding nurse manager error response from the perspective of just culture as well as impacts on nursing practice were compiled and reviewed with the thesis chair.

### **Protection of Human Subjects**

This project incorporated interviews with human subjects. Approval for human research was submitted to the Institutional Review Board at the University of California, Davis. The IRB determined the study was exempt from human subjects review. To retain anonymity, current and former places of employment of participants were not included in transcripts. Participant responses were voluntary and confidential.

### **Results**

### **Demographics**

Five nurse managers were interviewed for this study. Four subjects identified their gender as female and one subject identified as male. Two subjects identified their race as White, two identified as Asian, and one identified as African American. The subjects' age range was 38

years to 58 years old, with a mean age of 47.4 years. Years of experience working as a nurse ranged from 15 years to 33 years, with a mean experience of 21.4 years. Years of experience working as a nurse manager ranged from 2 years to 11 years, with a mean of 7.2 years of nurse management experience. Four of the subjects had achieved a Master of Science degree in nursing and one subject had achieved a Doctor of Philosophy degree in nursing.

### **Summary of Findings**

### **Insights from Qualitative Interviews**

### **Defining "Just Culture"**

- provides attention to systems and organizational issues contributing to safety and risk
- supports individuals coming forward to reveal mistakes and therefore fixed systems
- requires asking questions about underlying risks and contributing factors rather than just individual behavior
- importance of avoiding assumptions or preconceived ideas and investigating IRs/errors
- imperative to speak with staff involved in errors and listen attentively, suspending judgment
- provides a more accurate picture of issues and problems because you consider system as well as individual issues
- integrated into inpatient nursing practice within approximately the last decade
- recognition of the complexity and challenges of applying the principles of "Just Culture"
- provides framework for determining root cause of error
- institutional policies are needed to support Just Culture
- need for transparency in error investigation process
- sometimes relies on self-disclosure of error, acknowledgement of individual role in the error
- may promote self-disclosure of error by reducing staff fear of punishment
- self-disclosure may lead to faster response to error
- error response aims to promote safety by reducing risk of future error
- organizational support is essential for successful implementation
  - o upper administration
  - o HR
  - o Just Culture policy
- requires unique investigation and response for each error
- disciplinary action is not the primary way that problems are corrected

- nurse manager plays pivotal role in mitigating harm and risk-disclosing error to those affected and investigating gap that precipitated the error
- staff barriers to reporting IRs may include fear of punishment and social or professional stigma
- managers should provide second victim support for staff involved in error

### **Impact on Practice/Examples**

- recognition of multiple contributing factors such as physical proximity of easily confused materials
- protects staff from blame/firing while still promoting personal responsibility; may involve disciplinary actions for involved staff such as a letter of warning or even suspension
- involves communicating effectively and transparently with patients/families when there has been an incident or error
- importance of unit-level nursing leadership in their relationship with staff members
- recognition of staff guilt and shame in response to errors
- importance of reassuring nurses that they are not going to be fired due to errors
- need to differentiate between repeated errors with potentially disciplinary consequences and one-time errors
- attentiveness to practice "drift" away from established policies and procedures
- utility of algorithms to define possible responses to an error
- while is important to listen to staff explanations, it's difficult to know how to respond to explanations such as "I was too busy" (to follow guidelines and procedures)
- sometimes difficult for staff to acknowledge their role or ownership of complex, multipart error
- promotes process designs that promote safety by reducing risk for system and user error
- improves the very important practice of error self-disclosure
- there can be excessive self-reporting leading to many IRs that need to be investigated
- evolution of incident reporting systems to track and correlate errors
- union may be actively involved if individuals are potentially experiencing consequences such as suspension
- promotes staff critical thinking and involvement in process improvement
- can affect a unit and its leadership, promoting staff morale and satisfaction
- still difficult for staff to understand that IR reporting is not meant to be punitive
- shift reports between nurse managers and Assistant nurse managers often reveal errors even before an incident report is written
- may result in discovery and repair of system or process flaws
- Safety culture affects staff morale and job satisfaction
- nurse managers are critical piece of "just culture"
- important to maintain a balance between attentiveness to system issues and individual accountability

• important to recognize that nurses from other institutions more typically have a punitive approach to error and therefore are reluctant to self-disclose

Multiple subjects discussed a negative attitude toward immediate punishment of mislabeled lab specimens, citing it as policy that is contrary to just culture; one subject mentioned it with indifference to the institutional policy of immediate punishment for this error.

#### **Discussion**

Learning from error and applying that knowledge to improve safety is a fundamental concept of just culture. This process is not focused on assigning individual "blame" but on understanding the multiple contributing factors at multiple levels. Nurse managers are instrumental in operationalizing just culture in the nursing population, which has a significant impact on hospital safety. The participants' organization provided the framework for establishing a just culture, and the nurse managers were responsible for facilitating the integration of just culture amongst nursing staff.

The interviews highlighted both the complexity of "just culture" and the need for organizational support to successfully apply it in the error response process. Just culture was uniformly seen as a critically important component in the process of learning from error. Though the nurse managers acknowledged strong organizational support for establishing and maintaining a just culture, none of the managers received formal education or training in just culture practices. The nurse managers studied were able to identify and apply their organization's policy but also agreed that there is some individualization to certain aspects, such as nurse discipline. Lack of thorough training could lead to disparate error response by individual managers.

Error response that is incongruous with a just culture approach may present a moral challenge for nurse managers. Multiple managers who were interviewed expressed a negative attitude toward immediate punishment for certain errors, such as mislabeled lab specimens, citing it as a policy that is contrary to just culture. Policies that eliminate the use of the just culture algorithm also dampen the ability to learn from those errors.

Formal education and training in just culture utilization could improve nurse managers' error response and enhance organizational safety culture. Further research is needed to examine nurse manager role in applying just culture principles to error response and its effect on safety.

#### Limitations

This was a pilot study, conducted on a small convenience sample of participants from one hospital in Northern California. The data collected is not generalizable nor is it a comprehensive view of nurse managers' experiences. Interviewer bias may have affected participants' responses because the interviewer is a subordinate in the same organization. Review of both the interview guide prior to data collection and the final data with the thesis chair was an attempt to reduce bias.

#### Conclusion

The principles of just culture have been in use in healthcare for many years but there is little research on its application and impact on nursing. Nurse managers rely on their organizations to provide the foundation for utilizing a just culture approach in response to nursing error. Error outcomes may lead to improvements in safety for healthcare consumers as well as staff. It is important, therefore, to continue to explore aspects of nurse manager preparation and response to nursing error, to help derive meaning from preventable error.

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### Appendix A

### **Attachment 1: Interview Guide for Nurse Managers**

Interviewees were chosen by snowball sampling of nurse managers at an academic medical center.

This interview guide is intended to elicit responses that directly apply to the research questions. Additional questions may be asked for clarification or elaboration on the existing subject. New themes will not be explored unless the interviewee introduces an idea that enhances understanding of the research area.

### Introductory statement:

Thank you for agreeing to participate in this study that examines your perspectives of a just culture approach to error. Your input is valuable to helping us to understand the authentic workplace experience of nurse mangers with just culture. During this interview, please refrain from using names of colleagues and organizations, including your own workplace.

This research complies with all laws and regulations regarding human subjects in research. Your participation is voluntary, and consent may be withdrawn at any time in this process.

### Questions:

- 1. Describe your understanding of just culture.
- 2. How did you learn about just culture?
- 3. How do you think just culture affects safety in your organization?
- 4. Tell me about your role in responding to error.

- 5. Can you tell me about a time you had to respond to nurse error?
- 6. What are some challenges you have encountered when utilizing just culture principles?
  - a. Staff nurse barriers to error reporting
  - b. Staff nurse knowledge of just culture
- 7. What tools do nurse managers need to establish a just culture approach to error?
- 8. What would make it easier to establish a just culture approach to error?
- 9. What advice would you give a nurse manager who wanted to implement just culture in their workplace?
- 10. What else you would like to share with me about this topic?