

THE PERCEPTION OF JUST CULTURE ACROSS DISCIPLINES IN HEALTHCARE

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Recently, leading healthcare providers have adopted the principles of just culture to guide their organizations in learning from mistakes to ultimately improve patient safety. To do this, they have adopted an approach to foster active learning wherein members of an organization are encouraged to openly discuss errors without the fear of reprisals. This paper reports results from a just culture survey that was developed at the University of Illinois as part of a patient safety fellowship project. As part of a team, participating hospitals agreed to take part in the study and creation of a “just” culture of shared accountability. Overall results from the survey indicate a slightly positive perception of just culture, but detailed analysis revealed significant differences in the perception of a just culture across professions and departments.

INTRODUCTION

Patient Safety

The subject of human error has garnered wide attention in healthcare over much of the past two decades. Investigators in the Harvard Medical Practice Study studied the incidence of injuries caused by medical mismanagement or substandard care (Brennan, et al., 1991; Leape, et al., 1991). The authors found that these adverse events were reported in nearly 4% of all hospitalized patients in New York State in 1984, with approximately 14% of these injuries reported as fatal (Leape, et al., 1991). Leape extrapolated these figures to the United States population, estimating nearly 180,000 people die each year as a result of iatrogenic injury to some extent (Leape, et al., 1998).

Following this study, the Institute of Medicine report *To Err is Human* (Corrigan, et al., 2000) estimated the number of adverse medical events caused by human error as between 44,000 and 98,000 annually. Estimates also suggest that within the healthcare industry as a whole, medical errors reside among the ten major sources of fatalities (Rall, et al., 2001). The concern for improving patient safety and minimizing human error in medicine cannot be overstated.

Improvement through Culture

The healthcare industry has examined various approaches to quality improvements to current practice. Corrigan, et al., (2000) have suggested healthcare facilities adopt the quality improvement successes in other complex, high-tech industries such as aviation. One such effort is the focus on organizational safety, or *safety culture*. Safety culture has been defined as “The enduring value and priority placed on worker and public safety by everyone in every group at every level of an organization” (Wiegmann, et al., 2002).

Reason (1997), notes the workings of a safety culture are made up of cultures that are just; they report, learn, inform and are flexible. Reason notes that a *just culture* creates an atmosphere of trust, encouraging and rewarding

people for providing essential safety-related information. A just culture is also explicit about what constitutes acceptable and unacceptable behavior. Thus, a just culture resides within an organization’s overall safety culture (Figure 1).

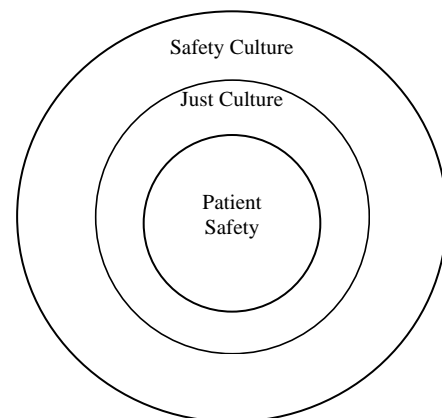


Figure 1. Representation of a just culture as the middle component between patient safety and a safety culture. From Hoppes, M. et al. (2005).

To understand the scope of medical error requires a climate that fosters trust, in which healthcare professionals are encouraged and willing to report errors and incidents; their own, and those of others. These reports provide key information about safety problems and aid in the development of potential solutions. To be effective, just culture must promote an atmosphere wherein the organization and its workers learn from mistakes, rather than focusing on blame and punishment of individuals (however, this does not apply to cases of criminal neglect, abuse, or violations). In a just culture, organizational response to unsafe acts or errors considers the origin of the error and the circumstances under which it was committed. Comprehensively punishing all errors, regardless of their origins and circumstances, along with punishing the acts of the individuals contributing to the errors is unacceptable (Reason, 1997; Reason, 1998). Discerning the underlying behavior that precedes mistakes and

errors allows investigators to determine whether the motivation was deliberately in violation of safe and standard practice (and was this violation system or individually induced), or whether the motivation was the result of inadequate training, tools, staffing or information.

However, there may be perceived barriers to trust in an organization based on the length of employment or an individual's position in the organization. In their discussion of *procedural justice*, Thibaut and Walker (1975), advance the concepts of personal control over the process of justice as the ability to voice opinion and influence the outcome of a process. Leventhal (Leventhal, 1980; Leventhal, et al., 1980) tested the perception of justice through generally applying these concepts, comparing a person's experience of a process to the rules of the process. Such rules include that the: procedures are based on accurate information; decision makers are free from bias; decision makers assure all subgroups affected by a decision are allowed to voice their concerns; rules are applied consistently across people and time; bad outcomes are correctible through appeal procedures; processes are ethical and moral.

However, rules and processes that stagnate do not serve to actively promote the perception of a just culture. Errors and their lessons identified but not put into practice aid in creating a passive organizational atmosphere wherein improvements and system corrections fall into a procedural black hole and do not resurface. In a just culture the organization must be willing to take the time to draw the right conclusions from its errors and the will to implement reforms based on this information (Reason, 1997 & 1998). An active learning approach to identifying errors and their lessons learned enables an organization to embed beneficial system and behavioral changes into the organization's culture (Hoppe, et al., 2005).

Evolution of the Just Culture Team

A Just Culture Team was formed as part of a Patient Safety Fellowship project. The fellowship project was aimed at first understanding a just culture, and secondly creating a just culture. The task force was to identify ways to understand and create a just culture for healthcare organizations. The Team consisted of patient safety specialists, risk managers, nursing officers, physicians, research and statistical experts and quality managers. The team members' facilities ranged in size from 100 employees to 11,000 employees. The project focused on the education and dissemination of information regarding a just culture along with the implementation of the principles of a just culture in the participating healthcare organizations. To accomplish this, each organization recognized its unique challenges and set about to inform the population via newsletters, bulletin boards, meetings, executive patient safety rounds, and training. Multiple participants from each organization were brought in to assist the staff to understand what is a just culture. This was carried out by defining the principles of a just culture and shared accountability, outlining the steps and procedures to achieve a just culture, and demonstrating patience as cultural change was introduced.

Throughout this endeavor, team members noted that there were possible barriers to the acceptance of a just culture. Examples of these barriers include: multiple unions, lack of discipline policies, and getting "buy in" for accountability. As each barrier was recognized the method for deconstructing it was also developed. For instance, with multiple union encounters, the unions should be involved from the beginning; contracts should be reviewed to determine if discipline is a management prerogative; union representatives and human resources should meet to review the concept of accountability as distinguished from blame; and a clear channel for how information will be disseminated to the staff defined (Hoppe, et al., 2005). Following this the team developed a self-evaluation tool to utilize as a staff survey to measure patient safety in healthcare organizations.

METHOD

This study represents an exploration into the perception of just culture across diverse healthcare settings using tools previously developed and validated in other settings and adapted to this survey. The just culture for patient safety survey was initially drafted by the team as part of the Patient Safety Fellowship Project. Originally consisting of 30 items the team merged these with constructs previously developed and validated at the University of Illinois (Wiegmann et al. 2002, 2003; Gibbons, et al., 2004).

Wiegmann et al. (2002; 2004) reviewed the organizational safety culture literature across a number of industries and originally identified five core indicators of an organization's safety culture to include: *organizational commitment*; *managerial involvement*, *employee empowerment*, *accountability*, and *reporting system*. The initial validation of the five indicators met acceptable standards with alpha coefficients indicating adequate reliability for each scale: *Organizational Commitment* (27 items) 0.94, *Management Involvement* (18-items) 0.90, *Reward System* (9 items) 0.71, *Employee Empowerment* (14 items) 0.81, and *Reporting System* (13 items) 0.86. However, high correlations between two of the five dimensions indicated the scales might measure the same construct (Wiegmann et al., 2003). After further testing, Gibbons, von Thaden and Wiegmann (2004) validated the correlation structure of the safety survey resulting in an improved version (see Gibbons, et al., 2006).

Combining the previous research, the team developed the items and placed them into four indicators of the constructs specifically related to just culture, which were identified as:

- *Reporting System (R)*: Does the organization have one, is it used, do people feel safe using it?
- *Response and Feedback (R&F)*: What happens to reports once they are filed? Does the organization act on the information provided? Does the organization share information and provide feedback?
- *Accountability (A)*: Are employees held equally accountable for their actions? Is there blame or favoritism? Does the organization recognize honest mistakes?
- *Basic Safety (BS)*: What is the organization's

commitment to basic safety? Is it reinforced throughout? Do workers have training, tools, etc. to perform work?

These items were arranged in a seven point Lickert scale, where “1” represented strong disagreement with the construct, “7” strong agreement, and “4” neutrality. The survey was pilot tested on medical professionals. From their comments the survey was reduced to 20 items. Each participating organization distributed the voluntary survey to their employees internally, with a cover letter assuring each participant’s anonymity.

RESULTS

For the 12 healthcare facilities, 6200 surveys were distributed with a total of 1984 surveys returned for an overall response rate of approximately 32% (see von Thaden and Hoppes, 2005 for an initial analysis of respondent’s demographics). Reliability tests for each item revealed a minimum Alpha coefficient of 0.825, and a maximum Alpha coefficient of 0.850. Cronbach’s Alpha based on the items=0.847.

Overall, the initial report indicated respondents were experienced in their professions (31% indicate between 3-7 years experience in their position, slightly over 50% indicate over 8 years experience). The majority of respondents indicated familiarity working at their organization (29.4% indicate working between 3-7 years at the organization, while 51% indicated over 8 years with their organization). Performance scores for each of the four dimensions were calculated by taking the mean of the participants’ responses on each item in the dimension scale. Negatively worded items were reverse coded so that higher scores on all items reflected a positive view of the organization’s just culture. Overall, respondents had moderately positive views on their organization’s just culture in all four dimensions (Figure 2). Response and Feedback has the strongest positive score (4.99), while Accountability has the weakest (4.34). Further detailed analysis is provided in von Thaden, et al., 2006.

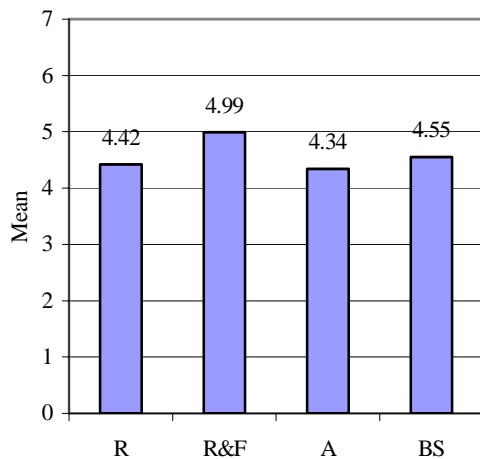


Figure 2. Mean scores of the 4 dimensions of just culture.

The results of the analysis highlight areas to address including perceptions of negative repercussions for reporting

errors and perceptions of the assignment of blame for errors committed. Other areas appear to reflect that while intentions may be positive, lack of time prevents disclosure of many mistakes and errors, and an existing perception that human error is aided by problematic technology and time pressure. To the credit of healthcare professionals, patient safety is seen as top priority and training is taken seriously.

A breakdown of respondents’ ratings on the four dimensions by occupation within the healthcare organizations is presented in Figure 3. From the figure it is clear that different employee groups tend to rate their organization’s culture differently. Physicians tended to have the highest ratings, followed by management, then nurses and clinical staff. Non-clinical staff had ratings less positive than physicians’ but tended to vary when compared to management and nurse ratings

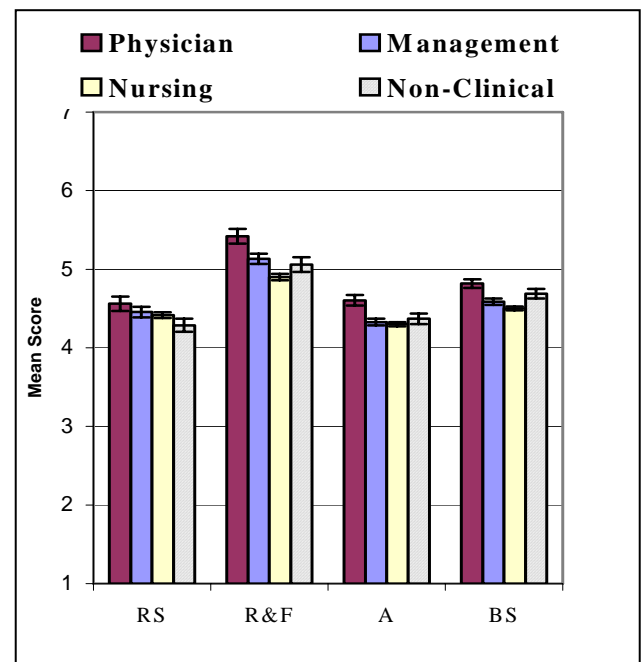


Figure 3. Just culture survey results by dimension and occupation (+/- 1 standard error).

One-way ANOVAs revealed significant differences in mean dimension score between employee groups for response and feedback ($F(3,1536)=9.53, p<0.001$), accountability ($F(3,1543)=6.06, p<0.001$) and basic safety ($F(3,1548)=9.53, p<0.001$). There was no statistically significant difference between mean scores for the reporting system dimension.

Post hoc comparisons (Tukey HSD) on response and feedback ratings showed physicians’ ratings to be significantly more positive than managements’ ($p<0.001$) and management’s to be significantly more positive than nurses’ ($p=0.01$). On the accountability and basic safety dimensions, physicians have a more positive view than both management and nurses ($p<0.01$). Across all four dimensions then, a trend emerges where physicians tend to have the most positive view of the culture as just.

In addition to the dimension scores, data was also broken down by responses to individual items. Of particular

note was that respondents indicated concerns to the item regarding *when an incident occurs that impacts patient safety, someone will be blamed* (Figure 4). Looking specifically at responses by each professional group, we see that while physicians have a slightly positive view, all other groups have a negative view of how their organization appropriates *blame* after an incident.

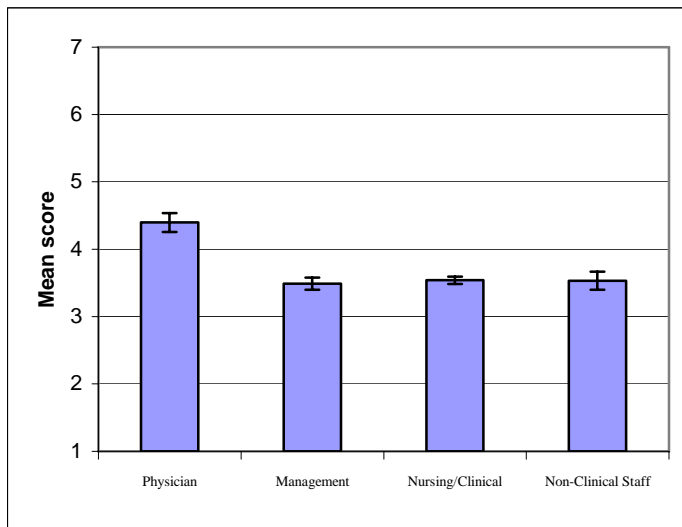


Figure 4. Responses to accountability item: If there is an incident that impacts patient safety, someone will be blamed.

Furthermore, comments gathered from the survey suggest employees perceive that disciplinary action is adjusted according to who makes the error. When comparing *when an incident occurs that impacts patient safety, someone will be blamed* ($M = 3.58, SD = 1.56, \text{min} = 1, \text{max} = 7$) with *this organization has a just culture* ($M = 4.67, SD = 1.66, \text{min} = 1, \text{max} = 7$), the item mean score appears contradictory to the moderately positive perception of the specific just culture item.

Cross tabulating this item by not only occupation, but also department, we discover the disparity between the physicians and the other healthcare professionals. The shaded areas in Table 1 reveal the negative responses.

Table 1. Cross tabulated responses to accountability item.

Job	Department*	Mean				
		Ancillary Support	Acute Care Services	Women's and Children's Care	Long Term or Rehab Care	Outpatient Care
	Physician	4	4	4	4	4
	Management	3	3	4	4	3
	Nursing/Clinical	3	3	3	4	4
	Non-Clinical Staff	4	3	6	4	3

*note: average mean scores may not agree with average mean scores in Figure 4 due to loss of data in cross tabulation.

Note that while the physician's responses are

consistently neutral across all departments, those in management, nursing/clinical, and non-clinical positions reflect varied responses, with the exception of long term or rehabilitation care. This suggests a disparity in the perception of justness in the culture by department and profession (see variance table, Table 2). This is most troubling in acute care, representing intensive care units, surgery units and emergency departments, wherein all but the physicians hold a negative view. There were no significant effects for age or experience level.

Table 2. Variance among responses to just culture item.

Variance	Ancillary Support	Acute Care	Women's/ Children's Care	Long Term/ Rehab Care	Outptnt Care
Physician	2	1	.	1	1
Management	3	4	.	2	1
Nursing/ Clinical	2	3	2	2	3
Non-Clinical Staff	1	2	.	4	1

Examining the rating's distribution among position and department reveals that divergence in responses by position and department is consistently represented in the ancillary and acute services when distinctly responding to the just culture item (see Table 3). The distribution of responses among managers and nursing/clinical staff and managers as compared with the distribution of physician responses upholds the notion of personal control (Thibaut & Walker, 1975). The data illustrate how perceived bias and lack of voice reveals differing experiences among professions and departments both within peer groups and among co-workers.

CONCLUSION

The overall results from the survey indicate healthcare professionals generally have a positive view of organizational just culture yet when considered by sub units and professions, a slightly different sub-cultural view is afforded researchers. The survey revealed differences in perceptions of just culture between physicians, management, nurses/clinical staff and non-clinical staff. Physicians tended to have more positive views than the other professions. Differences in perceptions of evaluation among departments also highlight areas where improvements to the experience of just culture may provide a better encounter for professional and patient safety alike. While on the surface it may appear positive, clearly, the concept of a just culture suffers ostensible differences when compared among the disciplines in healthcare. A just culture necessarily resides within an organization's overall safety culture and addresses the shared understanding of how behavior is determined acceptable and how accountability/culpability is evaluated. Ultimately it represents a shared accountability. Additional research is needed to determine the extent of just culture inconsistency proliferation among the healthcare disciplines.

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Table 3. Within job breakdown of item ranking for this organization has a just culture

Department Category	Profession	1	2	3	4	5	6	7
Ancillary Support	Physician	4.3%			17.4%	17.4%	39.1%	21.7%
	Management	3.3%	13.0%	7.6%	21.7%	12.0%	34.8%	7.6%
	Nursing/Clinical	1.0%	8.2%	9.3%	23.7%	17.5%	36.1%	4.1%
	Non-Clinical Staff		3.0%	3.0%	36.4%	15.2%	39.4%	3.0%
Acute Care Services	Physician			4.0%	16.0%	28.0%	52.0%	
	Management	10.5%	10.5%	15.8%	15.8%	10.5%	21.1%	15.8%
	Nursing/Clinical	6.3%	11.0%	10.1%	23.7%	10.1%	33.8%	5.0%
	Non-Clinical Staff		14.3%	14.3%	28.6%	14.3%	21.4%	7.1%
Women's and Children's Care*	Nursing/Clinical	4.3%	8.7%	8.7%	23.9%	17.4%	37.0%	
Long Term or Rehab Care	Physician			20.0%	40.0%	10.0%	30.0%	
	Management	5.3%			15.8%	10.5%	52.6%	15.8%
	Nursing/Clinical	3.4%	9.3%	7.6%	18.6%	13.6%	41.5%	5.9%
	Non-Clinical Staff		25.0%		25.0%	25.0%		25.0%
Outpatient Care	Physician				33.3%	33.3%	33.3%	
	Management		5.9%		29.4%	11.8%	52.9%	
	Nursing/Clinical	3.7%	7.4%	11.1%	18.5%	11.1%	44.4%	3.7%
	Non-Clinical Staff			16.7%	50.0%	16.7%	16.7%	

*All other ratings in Women's and Children's Care = 6 (100%) for the other professions (deleted for space)