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## Abstract

Medical errors are considered to be the third leading cause of death in the United States, estimated at more than 250,000 deaths per year. The Institute of Medicine's landmark report, *To Err is Human*, identified that errors are not always the fault of individuals, but systems, processes, and various conditions. In healthcare, the cornerstone of the process by which we learn from errors has been the voluntary reporting process. The primary barrier to reporting errors is the negative response from administrators, and the potential or risk of disciplinary action. An environment of trust and fairness is known as "Just Culture" and is required to promote the culture of safety. Employees must perceive that they will receive fair and just treatment when reporting safety near misses and incidents. This fosters a culture of safety, which encourages organizational improvements that impact patient safety.

## Purpose

This study examined the relationship between Just Culture and perceptions of trust in both direct care nurses and nurse leaders, and the impact of these variables on patient safety through voluntary reporting of incidents. The long-term goal of this study was to develop a better understanding about why incidents occur, identify new opportunities to protect patients from error, and improve the quality of care through system redesign.

## What is Just Culture?

"Just Culture refers to a values-supportive system of shared accountability where organizations are accountable for the systems they have designed and for responding to the behaviors of their employees in a fair and just manner. Employees, in turn, are accountable for the quality of their choices and for reporting both their errors and system vulnerabilities" (Outcome Engenuity LLC, 2012, p. 7).

## Research Questions

- RQ1 - Is Just Culture present in the organization?
- RQ2 - Is there a difference in the perception of trust between nurse leaders and direct care nurses?
- RQ3 - Is there a relationship between the level of trust among nurse leaders and direct care nurses, and the Just Culture principles?
- RQ4 - Is there a relationship between the level of trust among nurse leaders and direct care nurses and voluntary reporting of events?

## Research Design

This research implemented a quantitative, correlational, cross-sectional study design, with one data collection point to examine relationships among variables. Direct care nurses and nurse leaders (approximately 1,580 participants) were asked to complete an anonymous survey utilizing the Just Culture Assessment Tool and the Survey of Hospital Leaders. Participation was completely voluntary and no personal identifying information was collected. The surveys were available to participants for an eight-week period. Upon completion of the enrollment period, 185 nurses completed the survey, or 11.7% of the nurses surveyed.

## Operational Definitions

The Just Culture model operationally defines three human element decision concepts, which delineate the potential outcomes of the incident review process. These definitions were consistent with the decision concepts of the organization, even though different labels were used.

Consolable behavior - human error, inadvertent mistake, slip or lapse (Just Culture = human error).

Coachable behavior - minimization of or failure to recognize risk resulting in deviation from process, policy or system (Just Culture = risky behavior)

Censurable behavior - intentional violation of process, policy or system (Just Culture = reckless behavior) (MMC, 2014; Outcome Engenuity, 2015).

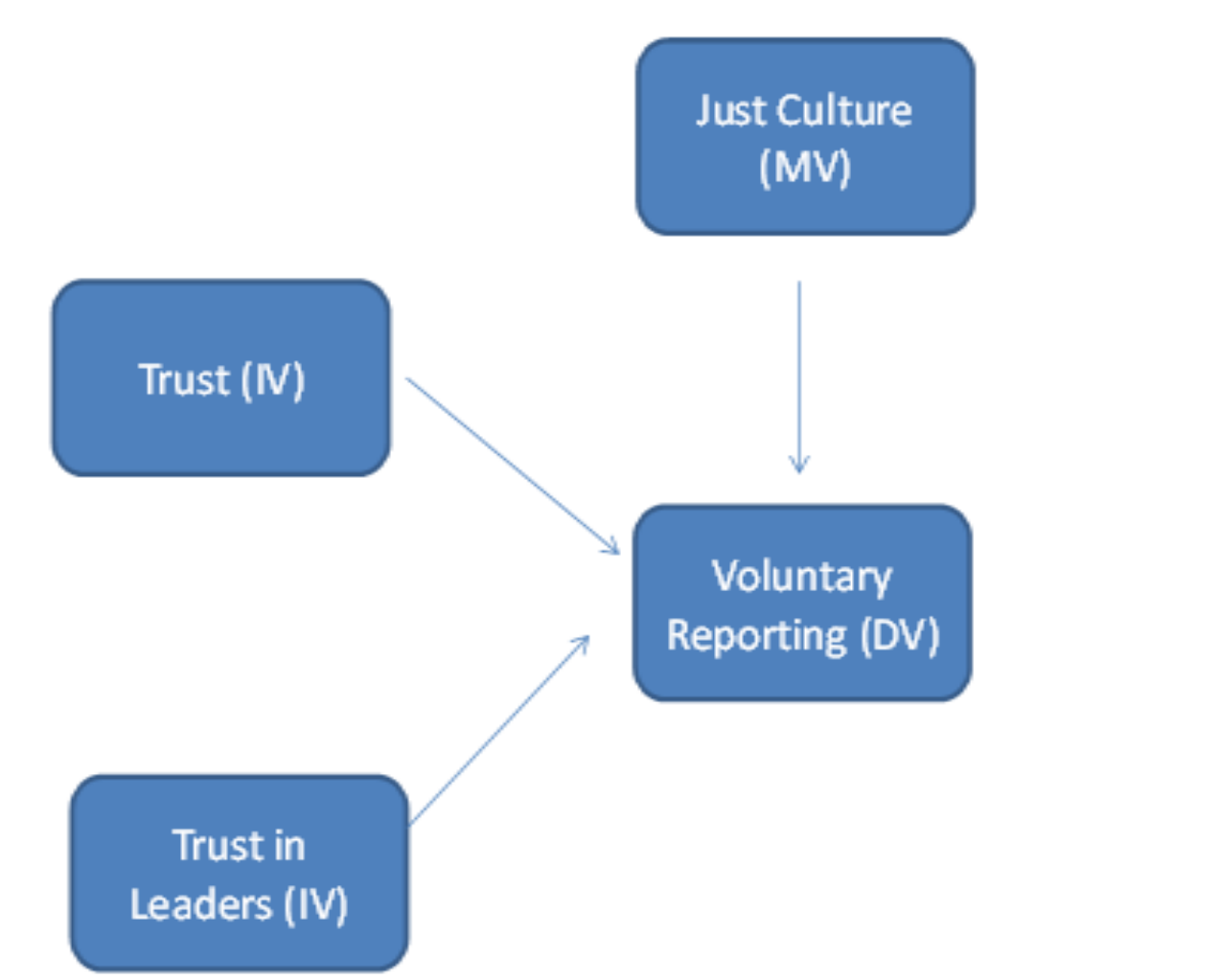
Trust (independent variable) - the extent to which individuals trust the organization, their supervisors, and their coworkers (Petschonek, 2013).

Trust in leaders (independent variable) - fair treatment of all employees and staff, regardless of their position in the hospital, after an event, regardless of the severity of the event (Barger, 2011).

Voluntary reporting (dependent variable) - the willingness of individuals to communicate event information upward to supervisors and hospital administrators (Petschonek, 2013).

Just Culture (mediator variable) - values supportive system of shared accountability (Outcome Engenuity, 2015).

## Theoretical Model



Mediation Model of Trust

## Survey Tools

The Just Culture Assessment Tool (JCAT) administered to direct care nurses and nurse leaders to measure Just Culture in a hospital setting. The tool is a 7-point Likert survey, categorized into six domains: balance, trust, openness of communication, quality of the event reporting process, feedback, and communication (Petschonek, 2011, p. 28).

The Assessment of Just Culture Principles Based on Document Review and the Survey of Hospital Leaders is a two part tool developed by Outcome Engenuity (Barger, 2011, p. 141) measuring organizational culture through questions which identify gaps in process and perceptions of leaders regarding the organization's culture. This 5-point Likert scale is a benchmarking survey.

## Chi-square Comparison of Perception of Just Culture

Question	DCNs Disagree %	DCNs Agree %	NLS Disagree %	NLS Agree %	chi-square value	P
Each employee is given a fair and objective follow up process regardless of his/her involvement in the event.	39.6	60.4	8.3	91.7	8.438	.004
I trust that the hospital will handle events fairly.	34.9	65.1	4.3	95.7	8.493	.004
I trust supervisors to do the right thing.	39.3	60.7	11.5	88.5	7.234	.007
Staff members are usually blamed when involved in an event.	23.9	76.1	48.0	52.0	5.868	.015
Staff members fear disciplinary action when involved in an event.	16.4	83.6	38.5	61.5	6.373	.012
Supervisors respect suggestions from staff members.	41.0	59.0	10.7	89.3	9.104	.003
Staff can easily approach supervisors with ideas and concerns.	33.6	66.4	7.7	92.3	6.968	.008
There are improvements because of event reporting.	36.8	63.2	8.0	92.0	7.720	.005
The hospital devotes (time/energy/resources) toward making patient safety improvements.	32.5	67.5	7.7	92.3	6.460	.011
The hospital sees events as opportunities for improvement.	23.0	77.0	0.0	100.0	6.777	.009

The difference between the direct care nurses' (DCN) and nurse leaders' (NL) perceptions of trust and Just Culture within the organization was statistically significant.

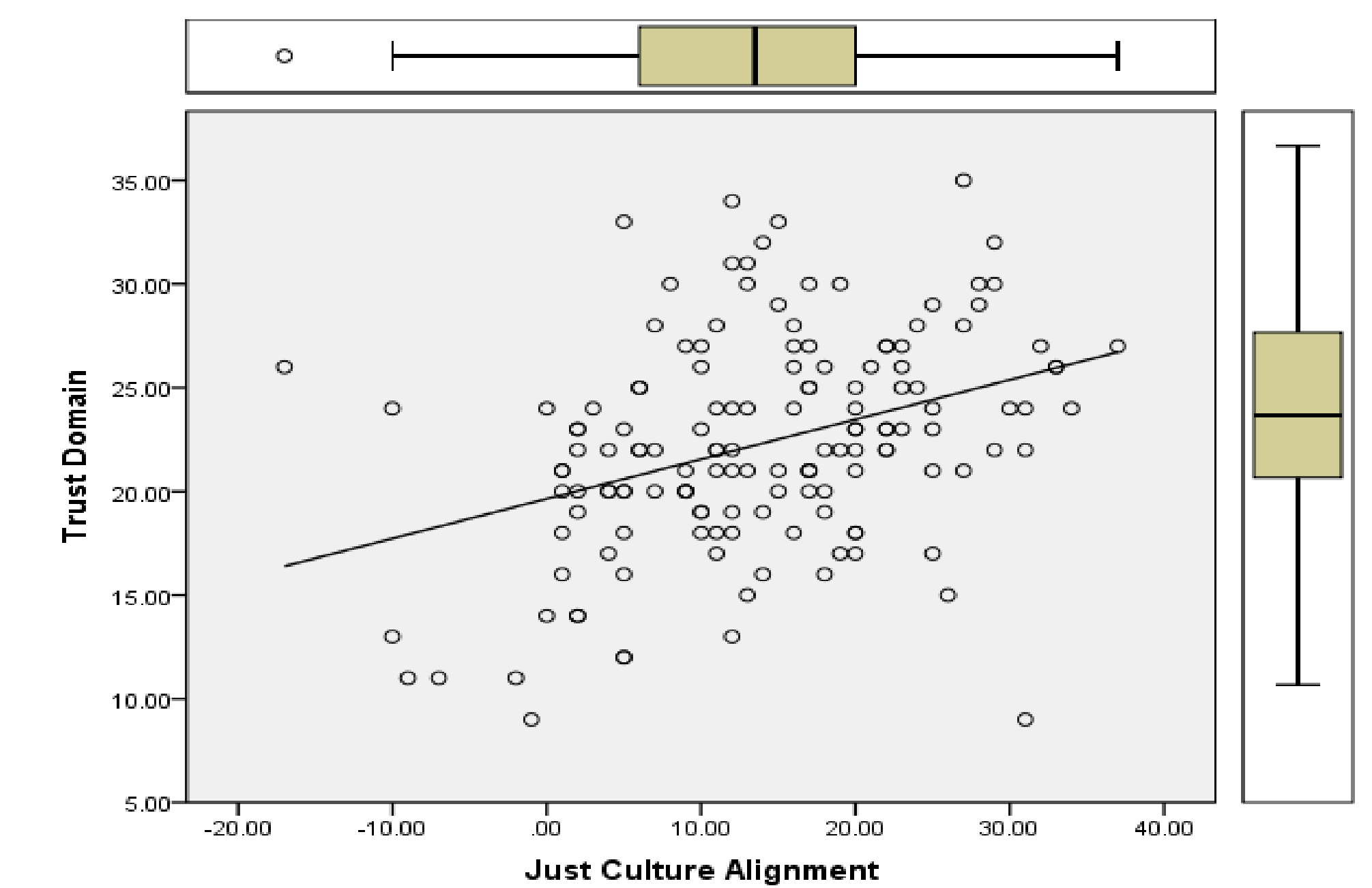
## Correlation Between Trust and Voluntary Reporting of Errors

		Trust Domain	Employees will report their own mistakes that could have resulted in patient harm	Employees will report their own mistakes that did result in patient harm
Trust Domain	Correlation Coefficient	1.000	.275**	.157
	Sig. (2-tailed)		.001	.052
	N =	154	154	154
Employees will report their own mistakes that could have resulted in patient harm	Correlation Coefficient	.275**	1.000	.518**
	Sig. (2-tailed)	.001		.000
	N =	154	161	161
Employees will report their own mistakes that did result in patient harm	Correlation Coefficient	.157	.518**	1.000
	Sig. (2-tailed)	.052	.000	
	N =	154	161	161

Strong positive correlations were identified between trust and voluntary reporting of events that **do** result in patient harm and **could have** resulted in patient harm. As the level of trust increased, employees were more likely to report mistakes that **do** result in patient harm (p = 0.052 level). A stronger positive correlation was identified between trust and voluntary reporting of events that **could have** resulted in patient harm (p = 0.001 level), possibly because these events do not have the same mandatory reporting expectations.

## Correlation Between Trust and Just Culture

A significant positive correlation was identified between trust and Just Culture alignment (p = .001). As the level of trust among direct care nurses and nurse leaders increased, the alignment with Just Culture principles increased.



## Implications

The findings of this study offer practical methods to developing a trusting and Just Culture. The first step is to assess the Just Culture Principles embedded in the organization. An understanding of strengths and weaknesses can assist nurse leaders to ensure a fair and balanced approach to incident investigation (DuPree, 2016). A Just Culture can lead to an environment where incidents are analyzed based upon the system in which the direct care nurse functions, resulting in essential changes to enhance accuracy (Throckmorton & Etchegaray, 2007). Organizations are dependent on the reporting of small errors, or near misses, to improve system-based sources of error. Direct care nurses' efforts in recognizing and reporting errors are rewarded when nurse leaders implement visible and meaningful improvements to the underlying systemic causes. This can strengthen the trusting environment, and reinforce the value of being error identifiers. The study also suggested a higher level of trust among coworkers. This result is promising in the development of supervisory trust. Baek and Jung (2015), identify a sequential order to the development of institutional trust. Coworker trust leads to supervisory trust, which in turn develops into organizational commitment.

## Limitations

- Small sample size - Final analysis represented 17% of nurse leaders and 9% of direct care staff.
- Length of survey - 63 questions - Staff may have been reluctant to complete the survey due to time constraints.
- Survey tools - Both utilized Likert scales with neutral choices, and contained questions with reverse wording. If respondents did not carefully read each item and note the reverse wording, it is possible that they answered differently than their intended response.