Just Culture – A Case of Mistaken Identity

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Background

The Agency for Healthcare Research and Quality (AHRQ) developed a tool for hospitals to assess their culture of safety and benchmark results against similar organizations. The 2018 Hospital Survey of Patient Safety Culture was administered by 630 hospitals. Non-punitive response to errors was one of the top three areas of potential improvement for most hospitals. Furthermore, when compared to the AHRQ 2016 data, nonpunitive response to errors remained a top patient safety concern with little to no improvement.[1] Lastly, at MD Anderson, the 2020 survey results demonstrated the need to focus on non-punitive response to errors within the institution and the Division of Pharmacy (DOP). After review of the data, action plans were developed at the institutional level.

Concurrently, a gap analysis was conducted using literature and expert opinion to assess the potential educational gaps of DOP staff. One of the key aspects of just culture is shared accountability. Unfortunately, data demonstrates that perceptions of just culture differ between leadership and staff.[2,3] Divisional plans were then created to align with the institution. Therefore, it was determined that all staff within the DOP engage in a three-part introductory series of knowledge-based activities to understand the core beliefs and basic principles of a just culture. Current literature predominantly describes nursing practice. This intervention is innovative to the practice of pharmacy. Lastly, there is minimal data in a cancer center setting.

Aims

1. To increase pharmacy leadership and staff knowledge of just culture principles by 30%
2. To evaluate the perception of just culture at MD Anderson between pharmacy leadership and staff

Methods

Gap Analysis: A gap analysis was conducted by the DOP Continuing Education Team and a Clinical Pharmacy Specialist in Pharmacy Quality-Regulatory. Through literature review and brainstorming, it was determined that the basic principles of a just culture were not understood by pharmacy leadership and staff, therefore, hindering the goal of shared accountability. Additionally, various reports have demonstrated differences in the perception of just culture between leadership and staff.[2,3] Together these gaps supported the need of a knowledge-based educational activity for all DOP staff on the basics of just culture.

Educational Design: The three-part educational series on the basic concepts of a just culture included three 15-minute home study continuing pharmacy education activities available in the Education Center. The learning objectives were: 1) Explain the importance of a Just Culture within a culture of safety, 2) List the core beliefs of a just culture, 3) Identify the types of human behaviors associated with errors, and 4) Recognize a resulting action for a type of human behavior associated with an error. This project was submitted to the Division of Pharmacy Quality Committee for oversight and evaluation.

Data Collection: Data was collected at the end of the series using Qualtrics survey software. Knowledge was assessed using the retrospective pre-post evaluation method.[4] Participants were asked to self-assess their knowledge from two viewpoints - BEFORE and AFTER the series. Responses were compared to measure change in knowledge (Figure 1). Perception of just culture at MD Anderson was measured using a self-reflection question asking participants to reflect on the frequency of behaviors observed when made aware of an error. The behaviors and associated "ideal" frequency aligned with the just culture concepts from the educational series (Figure 2). The self-reflection question and scale were not validated.

MODULE	JUST CULTURE CONCEPTS	Scale Used by Participants to Reflect BEFORE and AFTER Series				Scale	
		1	2	3	4		
1	The importance of just culture within a culture of safety	○	○	○	○	1 None	Have no knowledge of the content
	Core beliefs of a just culture	○	○	○	○		
2	The types of human behaviors associated with errors	○	○	○	○	2 Low	Know very little about the content
	Examples of human error	○	○	○	○		
	Examples of at-risk behaviors associated with errors	○	○	○	○	3 Moderate	Have basic knowledge; there is more to learn
	Examples of reckless behaviors associated with errors	○	○	○	○		
3	Resulting actions for human error	○	○	○	○	4 High	Consider myself very knowledgeable and can apply content
	Resulting actions for at-risk behaviors	○	○	○	○		
	Resulting actions for reckless behaviors	○	○	○	○		

Figure 1. Retrospective Pre-Post Evaluation to Measure Knowledge Gained

Reflect on the times you were made aware of an error. The error may or may not have involved you. How often did you observe the following behaviors?	1	2	3	4	Scale
Errors are reviewed with an emphasis on learning	○	○	○	●	1 Occasionally (0-25%)
Errors are reviewed with an emphasis on shared accountability (i.e., organizations are accountable for system design and employees are accountable for choices and behaviors)	○	○	○	●	2 Frequently (26-50%)
Resulting actions by leadership are dependent on the outcome of an error	●	○	○	○	3 Usually (51-75%)
Resulting actions by leadership are dependent on behavioral choices	○	○	○	●	4 Always (76-100%)
	● = IDEAL RESPONSE				

Figure 2. Self-reflection Question to Measure Perception of Just Culture

Results

The three-part educational series started in March 2020. The last module was released in June 2021. As of October 2021, 536 pharmacy staff completed the introductory series. When categorized by job title, 63% of participants were pharmacists and 31% were pharmacy technicians. Nine percent of participants were categorized as leadership, which was defined by the following job titles: Vice President of Pharmacy, Directors, Associate Directors, Managers, and Assistant Managers.

Knowledge Gained: After completion of the educational series, staff reported an overall increase in the knowledge of just culture concepts across each module. When analyzed by leadership versus staff responses, the staff reported a knowledge increase of more than 30% for each module. In comparison, leadership reported a knowledge increase of 24% for Module 1 and 26% for Module 2. For Module 3, leadership reported a knowledge increase of 34% (Figure 3). Statistical analyses were completed using Minitab software. When pharmacy leadership and staff responses were evaluated separately, participants reported a statistically significant higher level of knowledge after each activity for both categories ($p < 0.05$). However, when pharmacy leadership responses were compared to staff, the difference in responses were not statistically significant ($p > 0.05$).

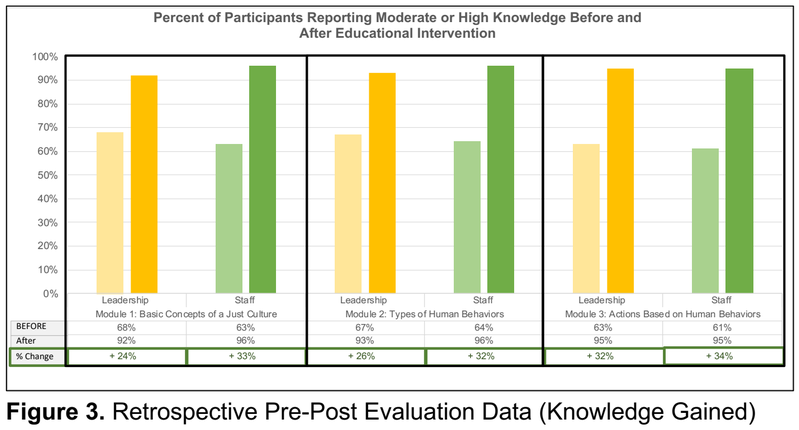

Figure 3. Retrospective Pre-Post Evaluation Data (Knowledge Gained)

Results (continued)

Perception of Just Culture: When asked to reflect on the frequency of behaviors observed when made aware of an error, 48% to 59% of leadership reported that the behaviors were "usually" observed (i.e., 51% to 75% of the time). A lower percentage of staff selected "usually" with a range of 39% to 42%.

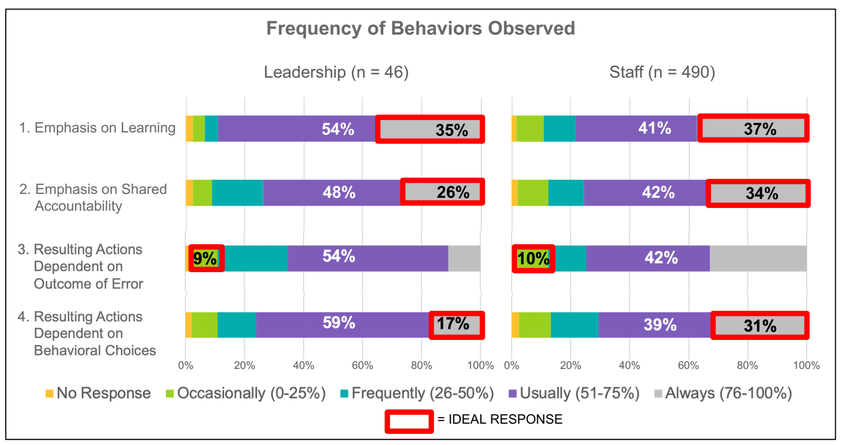

Figure 4. Self-reflection Data (Perception of Just Culture)

Limitations

This retrospective pre-post evaluation method is based on the participants' ability to recall and self-report their knowledge on the topic. The amount of time between the start of the educational series and the release of the last module (15 months) was not ideal. Furthermore, participants tend to see an improvement in knowledge or skill which can cause subject bias.[5] A traditional pre-then-post assessment method may be a more accurate measurement of knowledge change.

The self-reflection question and statements to measure the frequency of behaviors observed were not validated. Additionally, based on the responses, it was determined that participants could have misinterpreted the statements, specifically for behavior 3 in Figure 4. Therefore, the results are not conclusive regarding the perception of just culture amongst pharmacy leadership and staff.

Conclusions

Knowledge Gained: The educational intervention successfully increased the knowledge and understanding of pharmacy leadership and staff regarding the basic concepts of a just culture. While the data was statistically significant, there was a lower percentage gain seen with pharmacy leadership when compared to staff. This is expected due to their previous exposure to just culture concepts.

Perception of Just Culture: Upon construct of the survey instrument, the response of "always" was thought to be an ideal response for behaviors 1, 2 and 4. For behavior 3, the ideal response was thought to be "occasionally". The responses between pharmacy leadership and staff were comparable. This suggests that the perception of a just culture between pharmacy leadership and staff are similar. Because the survey instrument was not validated, further evaluation should be conducted.

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References

1. Hospital Survey on Patient Safety Culture: 2018 User Database Report.
2. Paradiso L, Sweeney N. Just culture: It's more than policy. Nurs Manage. 2019 Jun;50(6):38-45. doi: 10.1097/01.NUMA.0000558482.07815.ae. PMID: 31094886; PMCID: PMC6716556.
3. Vogelsmeier A, Scott-Cawiezell J, Miller B, Griffith S. Influencing leadership perceptions of patient safety through just culture training. J Nurs Care Qual. 2010 Oct-Dec;25(4):288-94. doi: 10.1097/NCQ.0b013e3181d8e0f2. PMID: 20220531.
4. Lang D, Savageau JA. (2017). Starting at the End: Measuring Learning Using Retrospective Pre-Post Evaluations. Center for Health Policy and Research (CHPR) Publications. Retrieved from https://escholarship.umassmed.edu/healthpolicy_pp/207.
5. O'Leary JL, Israel GD. Capturing Change: Comparing Pretest-Posttest and Retrospective Evaluation Methods [Internet]. Gainesville (FL): Agricultural Education and Communication Department, UF/IFAS Extension; 2019 May [cited 2022 Mar 21]. Available from: https://edis.ifas.ufl.edu/publication/WC135.