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Power Distance in Healthcare: Learning from Aviation to Decrease Power Distance and Improve Healthcare Culture

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Power Distance Index (PDI) is the degree that less powerful members of a culture accept and expect as power is distributed unequally (Hofstede, Hofstede, & Minkov, 2010). The hierarchical order evident within some cultures limits an individual who feels “less powerful” to speak out against the perceived “more powerful” individual. Power distance is not only evident within the culture of a nation or community, but also the culture of certain professions. Two professions historically negatively affected by PDI are healthcare and aviation. These two environments are similar to each other, and the safety of both has been affected by the professional and cultural acceptance of PDI. The PDI places little importance on collaboration and certain team members are expected to only “do what they are told”. Those considered to be in authority, physicians or pilots in this case, are not to be questioned and are the final word in a professional situation. Healthcare and aviation professionals are well trained to perform their jobs and can become embedded in their specific professional culture. Both professions consist of common tasks, high level thinking, and quick, emergent decisions with no room for error, understanding that mistakes in either environment can lead to injuries and deaths.

Historically, team members in healthcare and aviation were taught, either intentionally or unintentionally, not to question orders. Currently, the PDI remains high between physicians or pilots and all other team members. Professional cultural norms such as PDI can affect the professional environment, the concept of a safety culture, team members' wellbeing, and may lead to poor outcomes. To optimize a positive environment and create a culture which positively affects safety and outcomes we should determine methods to decrease PDI and recognize the value of all healthcare providers, as well as empower all members of the healthcare team.

Aviation recognized the need for change in the 1970's after experiencing several preventable aircraft accidents involving hundreds of fatalities. Aviation focused on changing the culture of a high PDI to one of collaboration and safety as priority. The improved aviation safety record is directly related to this intentional culture existing within the industry. Aviation has been recognized by other professions who all cite the aviation industry's culture of safety and collaborative approach to team building as areas that are exportable to their individual disciplines (Gawande, 2009; O'Conner, Reddin, O'Sullivan, O'Duffy, & Keogh, 2013; Bakdash & Drews, 2012; Kenger & Karlsson, 2007; Kohn, Corrigan, & Donaldson, 2000; Kosnik, Brown, & Maund, 2007). In the United States it is estimated that medical errors kill 250,000 people (third leading cause of death) annually (National Patient Safety Foundation, 2018; Makary & Daniel, 2016). Patients are not airplane passengers and a direct comparison of poor outcomes is not effective or fair to either industry, but aviation safety culture principles are exportable to healthcare. Improving healthcare environments and outcomes is multifactorial, with the issue of high PDI as a significant concept to consider.

Methods to mitigate PDI are important to discuss. One way the aviation community mitigates PDI is to use a checklist during operations to ensure important steps are completed without error.

Many healthcare facilities have implemented the use of checklist in the operating room as well as for specific time-out and other safety driven procedures. When properly used checklists decrease errors significantly (Bakdash & Drews, 2012), decrease the PDI among team members, and provide all team members with guidelines to which they hold themselves and others accountable.

Crew resource management (CRM) or the team approach has also been utilized in aviation to decrease PDI. Many aircraft accidents could have been avoided by improved communication between pilots and crew members who did not feel empowered to speak up about an issue. The focus on CRM for the medical field is a new focus and has yet to be fully accepted. CRM training programs within aviation have been cited as contributing factors in reduction of errors and improving the safety culture. Martinussen and Hunter (2010) concluded aviation's long-term commitment and dedication to CRM training has made a positive impact on safety and outcomes. CRM techniques developed from aviation can be utilized within healthcare to decrease PDI and improve outcomes.

Conclusions/Implications: Very little research exists examining how the Power Distance Index affects the healthcare environment, providers wellbeing, and produces safety culture. Yet, this historically high PDI continues to exist in healthcare and can negatively affect those variables. We need to continue to learn from aviation and reduce the high PDI in healthcare. Decreasing or equalizing PDI in healthcare encourages and empowers all providers and acknowledges their contributions. Providers as well as patients benefit from collaborative care, a healthy environment, and protecting provider wellbeing. There is a need for further research on PDI and its impact on the healthcare environment and providers.

Title:

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Keywords:

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References:

Bakdash, J., & Drews, F. (2012). Using knowledge in the world to improve patient safety: Designing affordances in health care equipment to specify a sequential checklist. *Human Factors and Ergonomics in Manufacturing and Service Industries*, 7-20. doi:10.1002/hfm.20289

Gawande, A. (2009). *The checklist manifesto: How to get things right*. New York, NY: Metropolitan Books.

Hofstede, G., Hofstede, G., & Minkov, M. (2010). *Cultures and organizations: Intercultural cooperation and its importance for survival*. Boston, MA: McGraw Hill.

Kenger, P., & Karlsson, A. (2007). Human error driving the development of a checklist for foreign material exclusion in the nuclear industry. *Human Factors and Ergonomics in Manufacturing*, 17(3), 283-298.

Kohn, L., Corrigan, J., & Donaldson, M. (2000). *To err is human: Building a safer health system*. Washington, DC: National Academies Press.

Kosnik, L., Brown, J., & Maund, T. (2007). Learning from the aviation industry. *Nursing Management*, 25-30. Retrieved from <http://nursingmanagement.com>

Makary, M., & Daniel, M. (2016). Medical error - the third leading cause of death in the US. *British Journal of Medicine*, 1-5. doi:10.1136/bjm.2139

Martinussen, M., & Hunter, D. (2010). *Aviation psychology and human factors*. Boca Raton, FL: CRC Press.

National Patient Safety Foundation. (2018). RCA2: Improving root cause analyses and actions to prevent harm. Retrieved from <http://npsf.org>

O'Conner, P., Reddin, C., O'Sullivan, M., O'Duffy, F., & Keogh, I. (2013). Surgical checklists: The human factor. *Patient Safety in Surgery*, 7(14), 1-7.

Abstract Summary:

Professional cultural norms such as Power Distance Index (PDI) can affect the professional environment, safety culture, and team members wellbeing. To optimize a positive environment we should determine methods to decrease PDI and recognize the value of all healthcare providers and empower all members of the healthcare team.

Content Outline:

Learning Outcomes:

- Define Power Distance Index (PDI).
- Discuss how Power Distance Index (PDI) affects the healthcare environment.
- Compare healthcare and aviation approach to PDI and improving professional environment.
- Describe methods to decrease PDI in healthcare and improve healthcare environment and provider wellbeing.
- Discuss the application of aviation's approach to mitigating errors due to high PDI.

Target Audience:

- Healthcare Health Providers
- Allied Healthcare providers
- Clinical personnel
- Researchers

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