

## Leadership style, organizational culture, and high reliability organization practices among nurse leaders in a selected healthcare facility in the middle east: Basis for a program



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Manuscript submitted: 25 March 2025, Accepted for publication: 27 March 2025

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### Abstract

This quantitative descriptive-correlational study determined the relationship between leadership styles, organizational culture, and High Reliability Organization Practices (HRO) among 215 nurse leaders. It also sought the differences when geographical distinctiveness, job classification, and number of years in leadership role were considered. Results revealed a “very high” prevalence of participative and “high” prevalence of authoritative and delegative styles. Organizational culture was “highly” practiced, and HRO practices were rated “very high”—a significant relationship between leadership style, organizational culture, and HRO practices. Moreover, a considerable difference in authoritative style emerged when geographical distinctiveness is considered. Leadership styles varied by job classification and number of years in a leadership role. Differences in achieving goals were observed based on geographical distinctiveness. Managing change and achieving goals differed significantly by job classification and years in a leadership role. However, HRO practices did not significantly differ by geographical distinctiveness. Self-efficacy varied across job classifications, but organizational risk response did not. Additionally, managing change and achieving goals differed by leadership tenure, while teamwork coordination did not. These results support the importance of company culture and leadership in promoting HRO practices.

### Keywords

healthcare programs;  
High Reliability  
Organization (HRO)  
practices;  
leadership style;  
nurse leaders;  
organizational culture;

International Journal of Health Sciences © 2025.

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## 1 Introduction

Organizations across the globe that live by the principles of High Reliability Organization (HRO) practices are unique entities that uphold the principles of patient safety and continuously drive excellence in every action to achieve safety, quality, and improved efficiency goals within the framework of service to the public. Healthcare organizations are no exception to this rule and are always at risk to many challenges that can potentially cause harm to patients and perform actions that could potentially lead to safety events and irreversible damage.

Carbajal et al. (2020), emphasized that there are several patient safety issues that healthcare leaders prioritized, studied, and elaborated on for the year 2020. These safety issues include: (1) global Covid-19 pandemic that put the global healthcare to a brink of collapse when hospitals were posed with unprecedented challenges to identify cure, manage hospital admission surges, and create vaccines; (2) healthcare staffing shortages due to ageing workforce and continuous increase healthcare services demands globally; (3) missed and delayed medical diagnoses; (4) clinical burnout imposing a huge patient safety and care quality; (5) health equity that leads to disproportionate consequences especially to patients of people of color who are at higher risk of medical inequities; (6) health care associated infections; (7) surgical errors and deaths; (8) implementation of standardized safety measures and efforts.

Additional information was provided by Nuber (2022), that in the year 2022, healthcare organizations continue to face unprecedented challenges that involves the safety of patients and this includes; (1) growing staffing inadequacies; (2) mental health challenges because of COVID-19 pandemic to healthcare professionals; (3) healthcare injustices involving race; (4) cognitive biases and diagnostic errors; (5) human related errors in healthcare; (6) global supply chain issues; and (3) healthcare leaders related decision making and actions.

### 1.1 Research Gap/Background

Leadership style, organizational culture, and HRO practices have often been part of studies that focused on its characteristics and influence despite several evidence that explain that the three concepts have relevant influence on key results and organizational key outcomes. Multiple factors, such as socio-geographical, socio-cultural, and background profiles, can be seen to influence the understanding of leadership styles and organizational culture (Lui & Johnston, 2019).

According to Stultz (2018), the form of leadership is the pinnacle of the HRO framework. Leaders are anticipated to perform actions that would provide a positive impact on the behaviors, habits, and technological literacy of the employees that will drive the organization to become a safe place to provide and receive patient care. Moreover, leadership is expected to fulfill the four main responsibilities in HRO development: (1) promoting science-based education by applying improvement initiatives, reliability science and continuous learning development and process; (2) promoting a culture of safety where everyone including patients are encouraged and empowered to speak up concerns and suggestions; (3) fostering a trusting environment, and (4) ensuring safe practices are aligned in the organization's values. Moreover, it is

integral in the process of HRO to identify high-reliability leaders whose priority is to innovate and facilitate improvements that will drive favorable patient safety outcomes (Memar Zadeh, 2023).

Frankel & Leonard (2018), rationalized that Reliability Organizations are defined by the effective performance of effective leadership and cultural maturity that takes charge of the overall culture of safety of the organization and leads the organization through continuous learning and improving method efficiencies in the daily practices of everyone in the organization.

Veazie et al. (2022) cited that to achieve safety and efficiency goals, healthcare organizations implement safety measures that fall under the umbrella of the 5 principles of HRO: (1) sensitivity to operations that involves a deep sense of understanding to relevant patient safety systems and processes; (2) hesitancy to simplify that explains one's acceptance to the complexity of work and acceptance to face failure in implementing new measures; (3) preoccupation with failure where looking at mistakes and errors as opportunities to prevent harm; (4) deference to expertise such as valuing and respecting opinions and contributions from the team; (5) committing to resilience especially on situation that are high risks and requiring a strong presence of mind to avoid errors.

It is not undisclosed to many that healthcare facilities and organizations today are in the process of robust and continuous growth and improvement. Several institutions seek improvements in the provision of care that include both public and private services, primary acute and chronic care, and terminal care (Figueroa et al., 2019). In terms of strengthening the internal foundation of many healthcare organizations, global institutions are developing strong multicultural teams of people from various culturally diverse origins for the reason to keep their position in the ever-growing global competition in healthcare. The recruitment of talent is focused on employing globally competitive professionals with a concentration on the optimized utilization of their diverse knowledge, skills, and perspectives (Lisak & Harush, 2021).

As healthcare moves to push itself to further improve and innovate, many focus on variable systems but retain a culture that becomes an indicator that determines the behavioral profile of the organizations that impacts their overall performance (Azzolini et al., 2018). There is also a challenge to innovate and develop new models of care in delivering patient-centered care emerging in the continuous trend developments in healthcare. This results in an effect for healthcare administrators to further develop leadership scope, influence, and responsibilities to cope with the immersing challenges and developments in healthcare (Forsyth & Mason, 2017). Moreover, the nursing practice is also continuously coping with the changes and challenges presented by participating in the intelligent recruitment of professionals with diverse knowledge and backgrounds to help balance disparities and bridge the gap to achieve health equity by implementing inclusive leadership (Barton, 2021).

Several studies have explored various concepts of HRO, leadership style, and organizational culture individually but not to the extent of studying the relationship of various leadership styles and organizational culture to HRO practices, particularly of nurse leaders. Nurse leaders are catalysts of change and innovations to many healthcare organizations. They effectively make critical decisions, plan, and implement strategic measures in transforming cultures, drive successful systems, and empower frontline workforce to drive improved and better clinical outcomes. Moreover, various researchers have focused on single causality studies but have not explored multiple causality studies to understand the complexities of the subject matter and to draw additional insights as the basis for recommendations.

## 2 Materials and Methods

The study utilized a quantitative descriptive - correlational research design to determine the relationship of specific leadership styles (authoritative, participative and delegative), organizational culture (managing change, achieving goals and coordinating teamwork), and HRO practices (self-efficacy and organizational risk response), of a selected healthcare facility in the Middle East. Quantitative research is designed to quantify numerical data and analyze research variables using statistical methods to facilitate scholarly understanding of the problem and deliver evidence-based results (Apuke, 2017).

The sample population of the study was conducted among licensed nurse leaders currently employed in a healthcare facility in the Middle East and were selected through purposive sampling specifically the total sampling technique. The respondents of the research study were purposively chosen based on their official job title as stated in the official organizational matrix. Moreover, the respondents were solely limited to nursing professionals who assume leadership or currently in an administrative job title that includes but not limited to charge nurses, assistant nurse managers, nurse managers, program managers, nurse educators and specialists, nurse coordinators, nurse administrators and nurse operation managers, clinical nurse directors, executive nurse directors, chief nursing officers and chief nurse executives.

The chosen healthcare facility has a total sample size of 215 employed nurse leaders. Following the principle of the total sampling technique, given that the study was conducted in a single healthcare facility in the Middle East, the study had a total sample size of 215. The sample size was identified after collecting data on the total number of nurses who are in a leadership or administrative role by reviewing the job title matrix of the healthcare facility. Moreover, the respondents were characterized based on the inclusion criteria such as geographical distinctiveness, job classification, and their current years in a leadership role.

The respondents were recruited from a single selected healthcare facility in the Middle East with a distinct organizational profile, diversity, variations in management directives, workload demand, and complex clientele profile. The chosen healthcare facility is either categorized as a private or public organization and licensed and governed by the United Arab Emirates Department of Health (DOH), Health Authority Abu Dhabi (HAAD), and/or the Abu Dhabi Health Services Company (SEHA). Moreover, the chosen organization is well-positioned and competes with other healthcare institutions from developed countries by maintaining active international accreditations. The total number of participants from a selected healthcare facility is 215.

The study was completed and delivered via Microsoft forms to ensure accuracy and efficiency, and a timely review was observed. The researcher employed and followed strategic measures such as getting approvals from the Adventist University of the Philippines Ethics Review Board and the chosen facility's research ethics committee, routine follow-ups, and leveraging professional connections and relationships to maximize visibility and outreach. During the administration of the research questionnaires, a voluntary consent statement is written in each segment of the questionnaires, stating that the respondents voluntarily submit their participation to the study when they choose to answer the questions, without signing a separate document.

The research utilized four research survey questionnaires that helped in the collection of pertinent data required for the study. The first questionnaire focuses on the demographic profile of the respondents. The second questionnaire is a leadership style questionnaire adopted from [Saif \(2024\)](#) that will help identify and collect data regarding the respondent's leadership style. The third questionnaire is the Organizational Culture Assessment Questionnaire (OCAQ) and is adopted from [Sashkin \(1991\)](#). This tool focuses on measuring and understanding the beliefs held by the responding healthcare facility in terms of (1) managing change, (2) achieving goals, and (3) coordinating teamwork. The fourth questionnaire is the High Reliability Organization Perception Scale (HRO Scale) from [Venette \(2003\)](#), which helps measure the respondent's self-efficacy and their perception of how an organization perceives and responds to risk and error.

The data gathered were summarized and encoded. Reliable software known as IBM SPSS (Statistical Package for Social Sciences) version 26 was used to run advanced statistical analysis, and other applicable statistical applications were used during the analysis of collected data from the distributed research questionnaire. Descriptive statistics such as Mean and Standard Deviation were used to summarize the data. Pearson Correlation Coefficient ( $r$ ) was used to determine relationships, while the Kruskal-Wallis H test was used to determine differences.

Mean is a descriptive statistical tool that was used to examine, elaborate, and explain the data gathered from research questions 1 to 3. This statistical tool is also known as the average of a group of values, the most common measure of central tendency, and is expressed in the formula  $\Sigma X/N$ , which means the sum of all the scores in the distribution ( $\Sigma X$ ) divided by the total number of scores ( $N$ ). Statistically, the mean is the sum of values from a given set divided by the total number of values in each set, where for a set of given  $N$  values, add up the given values in the set and divide by  $N$  to determine the mean ([Hurley & Tenny, 2022](#)).

Pearson's Correlation Coefficient (R) was utilized to analyze the relationship of the two independent variables to the dependent variable. This statistical tool is used to measure the strength of the relationship and the direction of linear relationship between two or more variables. The strength of the linear relationship increases as  $r$  moves

away from 0 toward -1 or 1. The correlation coefficient value ranges from -1 to 1, where a resulting value of -1 will mean a negative linear relationship, a resulting value of 0 will mean no linear relationship, and a resulting value of +1 will mean a positive linear relationship (Williams et al., 2020).

Kruskal-Wallis H test was also used to answer the last 3 research questions to determine significant differences. This non-parametric test is an alternative statistical method to a one-way analysis of variance and is widely used in comparing populations to determine their similarity or if certain populations provide a different observation from other populations (Sherwani et al., 2021).

### 3 Results and Discussions

#### 3.1 Results

Table 1  
Respondent's Extent of Practice in Terms of Authoritative Leadership Style

| Authoritative Leadership   | Mean  | StDev | Scaled Response |
|--|-------|-------|-----------------|
| Employees need to be supervised closely, or they are not likely to do their work.                                  | 3.10  | 1.49  | Neutral         |
| It is fair to say that most employees are lazy.  | 1.87  | 1.02  | Disagree        |
| As a rule, supervisors must be given rewards or punishments to motivate them to achieve organizational objectives. | 4.07  | 1.15  | Agree           |
| Most employees feel insecure about their work and need direction.  | 2.86  | 1.28  | Neutral         |
| The supervisor is the chief judge of the achievements of the members of the group.                                 | 3.32  | 1.31  | Neutral         |
| Effective supervisors give orders and clarify procedures.  | 4.19  | 0.89  | Agree           |
| Overall Mean Score   | 3.22  | 0.70  | Neutral         |
| Overall Sum Score  | 19.41 | 4.22  | High            |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 1 exhibits that the extent of practice in terms of authoritative leadership style was perceived by the nurse leaders with an overall mean score of 3.22 with a standard deviation of 0.70 and an overall sum score of 19.41 with a standard deviation of 4.22 described verbally as "High". This means that the supervisors practice authoritative leadership where they make all the decisions and solicit relatively little feedback from the other members of the group. According to Specchia et al. (2021), hospital supervisors do not consult others for suggestions or opinions; instead, they choose actions according to their convictions. Given the complex challenges in hospital settings, supervisors need to practice an authoritative leadership style to ensure smooth operations. Thus, they frequently exploit their power—which is guaranteed by organizational hierarchies—to expect complete compliance from their followers.

Based on the result, the statement that effective supervisors give orders and clarify procedures has the highest mean score of 4.19 with a standard deviation of 0.89, described verbally as "Agree". This means that the supervisors practice authoritative leadership by giving orders and explaining procedures to their subordinates. This is important to ensure that all employees are adhering to the standards set by the hospitals.



On the other hand, the statement that it is fair to say that most employees are lazy got the lowest mean of 1.87 with a standard deviation of 1.02, described verbally as “Disagree”. This means that the authoritative leadership style is effective in managing lazy employees.

To elaborate further, supervisors must be given rewards or punishments to motivate them to achieve organizational objectives ( $M = 4.07, SD = 1.15$ ). Employees need to be supervised closely, or they are not likely to do their work ( $M = 3.10, SD = 1.49$ ). Most employees feel insecure about their work and need direction ( $M = 2.86, SD = 1.28$ ), and the supervisor is the chief judge of the achievements of the members of the group ( $M = 3.32, SD = 1.31$ ). This means that nurse leaders are highly motivated by their supervisors and do not need strict supervision to do their work properly. Such motivation by acknowledging good performance and their value in the organization motivates nurses to work properly with less supervision.

Table 2  
Respondent’s Extent of Practice in Terms of Participative Leadership Style

| Participative Leadership  | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| Employees want to be part of the decision-making process.                           | 4.43  | 0.69  | Strongly Agree  |
| Guiding without pressure is the key to being a good supervisor.                     | 4.53  | 0.65  | Strongly Agree  |
| Most employees want frequent and supportive communication from their supervisors.   | 4.36  | 0.71  | Strongly Agree  |
| Supervisors need to help employees accept responsibility for completing their work. | 4.43  | 0.69  | Strongly Agree  |
| It is the supervisor’s job to help employees find their “passion”                   | 4.40  | 0.99  | Strongly Agree  |
| People are competent and if given a task will do a good job.                        | 4.33  | 0.68  | Strongly Agree  |
| Overall Mean Score  | 4.41  | 0.41  | Strongly Agree  |
| Overall Sum Score   | 26.08 | 2.83  | Very High       |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 2 exhibits that the respondents’ level of leadership style in terms of participative leadership has an overall mean score of 4.41 with a standard deviation of 0.41 and overall sum score of 26.08 with a standard deviation of 2.83 described verbally as “Very High”. This means that the supervisors foster teamwork by encouraging collaboration and responsibility in each person’s position.

Based on the result, the statement that guiding without pressure is the key to being a good supervisor got the highest mean of 4.53 with a standard deviation of 0.65, described verbally as “Strongly Agree”. This indicates that supervisors provide instructions to nurses without putting undue pressure on them. Thus, giving workers independence necessitates that they comprehend their role in the organization’s success.

This was followed by the statements that employees want to be part of the decision-making process ( $M = 4.43, SD = 0.69$ ) and supervisors need to help employees accept responsibility for completing their work ( $M = 4.43, SD = 0.69$ ). This means that supervisors use participative leadership which promotes employee participation, which is a strategic approach that ensures all employees have a voice and a shared responsibility in decision-making processes.

On the other hand, the statement that people are competent and, if given a task, will do a good job got the lowest mean score of 4.33 with a standard deviation of 0.68, described verbally as “Strongly Agree”. This indicates that the nurse leaders are naturally capable of doing the responsibilities assigned to them effectively. According to Maelany et al. (2022), nurses are expected to be competitive and possess the necessary knowledge, skills, and abilities to perform a task.

Table 3  
Respondent's Extent of Practice in Terms of Delegative Leadership Style

| Delegative Leadership   | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| In complex situations, supervisors should let employees work problems out on their own. | 2.80  | 1.34  | Neutral         |
| Leadership requires staying out of the way of employees as they do their work.          | 3.97  | 1.02  | Agree           |
| As a rule, leaders should allow employees to appraise their work.                       | 4.23  | 0.85  | Strongly Agree  |
| Supervisors should give employees complete freedom to solve problems on their own.      | 2.85  | 1.24  | Neutral         |
| In most situations, employees prefer little input from their supervisor                 | 3.40  | 1.18  | Neutral         |
| In general. It is best to leave employees alone and let them do their job.              | 3.83  | 1.25  | Agree           |
| Overall Mean Score  | 3.48  | 0.62  | Agree           |
| Overall Sum Score   | 21.07 | 3.91  | High            |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 3 exhibits that the extent of practice in terms of delegative style of leadership was perceived by the nurse leaders with an overall mean score of 3.48 with a standard deviation of 0.62 and an overall sum score of 21.07 with a standard deviation of 4.36 described verbally as "High". This means that the supervisors practice delegative leadership where they give their team members tasks and duties while allowing them the freedom to decide for themselves and accept responsibility for the tasks.

Based on the result, the statement that as a rule, leaders should allow employees to appraise their work got the highest mean of 4.23 with a standard deviation of 0.85, described verbally as "Strongly Agree". This means that supervisors allow nurses to make decisions on their own. Employees are empowered to solve problems and make decisions under this leadership style.

On the other hand, the statement that in complex situations, supervisors should let employees work problems out on their own got the lowest mean of 2.80 with a standard deviation of 1.34, described verbally as "Neutral". The responses demonstrate a balanced approach, whether they permit nurses to handle complex circumstances independently or provide guidance to their subordinates. However, the environment determines how effective this method is. This could be due to the nurses' varied experiences; some may feel comfortable handling challenging patients, while others may need guidance from their supervisors.

To elaborate further, leadership requires staying out of the way of employees as they do their work ( $M = 3.97$ ,  $SD = 1.02$ ), and in general, it is best to leave employees alone and let them do their job ( $M = 3.83$ ,  $SD = 1.25$ ).

This implies that the administrators employ a leadership style that encourages nurses to be independent and to have trust in their ability to perform their duties without close monitoring. This can allow them to work independently and can enhance their sense of accountability.

Table 4  
Respondent's Extent of Practice in Terms of Managing Change

| Managing Teams  | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| People are flexible and adaptable when changes are necessary.   | 4.41  | 0.79  | Strongly Agree  |
| People feel that most change is the result of pressures imposed from higher up in the organization.               | 3.63  | 1.08  | Agree           |
| People have a clear idea of why and how to proceed throughout the process of change.                              | 3.81  | 0.95  | Agree           |
| Most people believe that change happens too quickly and causes too much disruption.                               | 3.62  | 1.04  | Agree           |
| People believe they can influence or affect their workplace through their ideas and involvement.                  | 4.42  | 0.68  | Strongly Agree  |
| People believe that their concerns and anxieties during periods of change are heard and taken into consideration. | 4.00  | 1.05  | Agree           |
| Overall Mean Score  | 3.98  | 0.48  | Agree           |
| Overall Sum Score   | 23.90 | 2.91  | High            |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 4 exhibits that the extent of practice in assessing organizational culture in terms of managing change was perceived by the nurse leaders as "High" with an overall mean score of 3.98 with a standard deviation of 0.48 and an overall sum score of 23.90 with a standard deviation of 2.91. This means that nurse leaders demonstrate qualities and perform with high regard in terms of facilitating smooth transitions and effectively managing organizational changes to achieve goals and coordinate teamwork. Nurse leaders can help staff members navigate changes in the workplace and career development as they gain change management skills.

Based on the result, the statement that people believe they can influence or affect their workplace through their ideas and involvement got the highest mean of 4.42 with a standard deviation of 0.68, described verbally as "Strongly Agree". This demonstrates how nurse leaders are empowered and capable of fostering an environment of collaboration at work by utilizing their ideas and involvement. In addition to improving patient outcomes, this interaction can boost their sense of morale.

On the other hand, the statement that most people believe that change happens too quickly and causes too much disruption got the lowest mean of 3.62 with a standard deviation of 1.04, described verbally as "Agree". This implies that things may unravel or become predictable and static in healthcare settings.

To elaborate further, people are flexible and adaptable when changes are necessary ( $M = 4.41$ ,  $SD = 0.79$ ), and people believe that their concerns and anxieties during periods of change are heard and taken into consideration ( $M = 4.00$ ,  $SD = 1.05$ ). This means that nurse leaders tend to be flexible and adaptable during changes. Having the ability to be flexible and adaptive is crucial when adjustments are required. These abilities enable people to adapt to novel situations, concepts, and goals. Additionally, they can assist individuals in adapting to new settings.



Table 5  
Respondent's Extent of Practice in Terms of Achieving Goals

| Achieving Goals   | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| Individuals and teams have clearly defined goals that relate to the goals or mission of the organization. | 4.24  | 0.61  | Strongly Agree  |
| People and teams are often expected to reach goals that they believe are unattainable.                    | 3.05  | 1.37  | Neutral         |
| Individuals and teams are measured and rewarded according to how well goals are achieved.                 | 3.95  | 0.91  | Agree           |
| Individuals and teams participate in defining specific goals.   | 3.90  | 0.97  | Agree           |
| We constantly stretch our goals, to continuously improve.   | 4.22  | 0.83  | Strongly Agree  |
| Individuals, teams, and functional areas often have incompatible goals.                                   | 2.72  | 1.40  | Neutral         |
| Overall Mean Score  | 3.68  | 0.48  | Agree           |
| Overall Sum Score   | 22.25 | 2.84  | High            |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 5 exhibits that the respondents' extent practice in assessing organizational culture in terms of achieving goals was perceived by the nurse leaders with an overall mean score of 3.68 with a standard deviation of 0.48 and an overall sum score of 22.25 with a standard deviation of 2.84 described verbally as "High". To elaborate further, this was followed by the statements: constantly stretch our goals, to continuously improve ( $M = 4.22$ ,  $SD = 0.83$ ) and individuals and teams are measured and rewarded according to how well goals are achieved ( $M = 3.95$ ,  $SD = 0.91$ ). This means that the accomplishment of the strategic goals of the healthcare organizations is facilitated by its organizational culture, which also draws in the best candidates and highlights potential misfits.

Based on the result, the statement that individuals and teams have clearly defined goals that relate to the goals or mission of the organization got the highest mean of 4.24 with a standard deviation of 0.61. This means that there are several advantages when individuals and groups have established goals that complement the mission of the company, such as better results. Employees who have clear goals are better able to grasp their responsibilities, which can improve performance.

On the other hand, the statement that individuals, teams, and functional areas often have incompatible goals got the lowest mean of 2.72 with a standard deviation of 1.40. Since it expresses the issue of individuals, groups, and functional areas frequently having conflicting goals honestly and without passing judgment or showing bias, the response is neutral. Without assessing whether this misalignment is advantageous or disadvantageous, it merely recognizes its existence as a true organizational reality. The descriptive tone ensured by the lack of emotionally charged language or support for certain solutions permits a deeper examination of the sources, impacts, and possible approaches to solving the problem. Without being swayed by preexisting ideas, this neutrality offers a fair basis for this result.

Table 6  
Respondent's Extent of Practice in Terms of Coordinating Teamwork

| Coordinating Teamwork   | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| Teams often lack the authority needed to get the job done effectively.                                  | 1.95  | 0.86  | Disagree        |
| People believe in teamwork, the "what's in it for us" approach rather than "what's in it for me."       | 4.09  | 1.00  | Agree           |
| People lack the interpersonal and technical skills they need to work effectively in teams.              | 1.92  | 1.00  | Disagree        |
| People know what is expected of them and understand their impact on other people, teams, and functions. | 4.14  | 0.70  | Agree           |
| People believe in working together collaboratively, preferring cooperation over completion.             | 4.51  | 0.64  | Strongly Agree  |
| Managers at all levels work together as a team to achieve results for the organization.                 | 4.21  | 0.76  | Strongly Agree  |
| Overall Mean Score  | 3.47  | 0.37  | Agree           |
| Overall Sum Score   | 20.82 | 2.21  | High            |

Legend: 1-7 very low; 8-15 low; 16-23 high; 24-30 very high

Table 6 exhibits that the respondents' extent of practice in assessing organizational culture in terms of coordinating teamwork was perceived by the nurse leaders with an overall mean score of 3.47 with a standard deviation of 0.37 and an overall sum score of 20.82 with a standard deviation of 2.21 described verbally as "High". This means that organizational culture and performance are strengthened by teamwork, communication, and trust in an organizational culture that encourages creativity and promotes teamwork.

Based on the result, the statement that people believe in working together collaboratively, preferring cooperation over completion, got the highest mean of 4.51 with a standard deviation of 0.64, described verbally as "Strongly Agree". This was followed by managers at all levels working together as a team to achieve results for the organization ( $M = 4.21$ ,  $SD = 0.76$ ) and people knowing what is expected of them and understanding their impact on other people, teams, and functions ( $M = 4.14$ ,  $SD = 0.70$ ). This means that teamwork is practiced in the healthcare setting in general. With this, nurse leaders can contribute their varied viewpoints for problem-solving in a team setting, which improves their ability to come up with answers faster and more efficiently.

Table 7  
Respondents' Level of HRO Practices in Terms of Self-Efficacy

| Self-Efficacy  | Mean  | StDev | Scaled Response |
|--|-------|-------|-----------------|
| My opinions are taken into account in the daily operations.                          | 4.38  | 0.79  | Strongly Agree  |
| My opinions are taken into account in long-term planning.                            | 4.17  | 0.83  | Agree           |
| My actions directly contribute to the prevention of [high-risk] response procedures. | 4.42  | 0.60  | Strongly Agree  |
| My actions influence others to prevent [high risk] response procedures.              | 4.40  | 0.59  | Strongly Agree  |
| Overall Mean Score   | 4.34  | 0.51  | Strongly Agree  |
| Overall Sum Score  | 17.32 | 2.08  | Very High       |

Legend: 1-5 very low; 6-10 low; 11-15 high; 16-20 very high

Table 7 exhibits that the respondents' high level of HRO practices in terms of self-efficacy was perceived by the nurse leaders with an overall mean score of 4.34 with a standard deviation of 0.51 and an overall sum score of 17.32 with a standard deviation of 2.08 described verbally as "Very High".

According to the study's findings, nurses have a high degree of self-efficacy when it comes to applying HRO practices. This result emphasizes how confident the participants were in their capacity to carry out their responsibilities and support organizational reliability. Their unwavering faith in their talents is essential to preserving quality, safety, and consistency in healthcare environments. The high degree of self-efficacy among nurses shows that they are prepared to face difficulties, follow rules, and take an active part in projects that enhance HRO practices and patient outcomes. These findings demonstrate how crucial nurses are to creating a culture of high dependability in their healthcare organizations.

Based on the result, the statement that their actions directly contribute to the prevention of [high-risk] response procedures got the highest mean of 4.42 with a standard deviation of 0.60. This means that nurse leaders highly contribute to the prevention of risks in the hospitals. Being a trainer is one of the most important tasks that nurse leaders play in promoting health and preventing disease and risks. Spending the most time with patients, nurse leaders offer proactive advice regarding vaccinations, diet, medicine, and safety.

To elaborate further, their actions influence others to prevent [high-risk] response procedures ( $M = 4.40$ ,  $SD = 0.59$ ), and my opinions are taken into account in the daily operations ( $M = 4.38$ ,  $SD = 0.79$ ).

On the other hand, the statement that opinions are taken into account in long-term planning got the lowest mean of 4.17 with a standard deviation of 0.83. This means that the nurse leaders' opinions are considered in the organizations' long-term plans. The long-term plan's creation is the responsibility of top management with the help of the employees. The hospital supervisors are responsible for ensuring that the organization's long-term strategy takes into account the ever-changing internal and external environment.

Table 8  
Respondent's Level of HRO Practices in Terms of Organizational Risk Response

| Organizational Risk Response  | Mean  | StDev | Scaled Response |
|---|-------|-------|-----------------|
| My organization is very concerned about the possibility of making high-risk mistakes.   | 4.37  | 0.54  | Strongly Agree  |
| My organization is committed to correcting any shortcomings in preventing high-risk mistakes.   | 4.38  | 0.55  | Strongly Agree  |
| My organization's supervisors and managers accept the advice of employees if they think the employee has a good idea about how to resolve a [high risk] response. | 4.38  | 0.60  | Strongly Agree  |
| My organization is committed to correcting any shortcomings in its [high-risk] response procedures.   | 4.51  | 0.55  | Strongly Agree  |
| Overall Mean Score  | 4.41  | 0.36  | Strongly Agree  |
| Overall Sum Score   | 17.54 | 1.57  | Very High       |

Legend: 1-5 very low; 6-10 low; 11-15 high; 16-20 very high

Table 8 exhibits that the respondents' HRO practices in terms of organizational risk response were perceived by the nurse leaders as "Very High" with an overall mean score of 4.41 with a standard deviation of 0.36 and an overall sum score of 17.54 with a standard deviation of 1.57. This means that the organizations have available interventions for the possible threats in the organizations. An organization may react to high risk by creating and carrying out a risk management plan. The amount of risk that a hospital is prepared to take on is known as its risk tolerance. Depending on its goals and mission, it can differ both inside and between organizations.

Based on the result, the statement that the organization is committed to correcting any shortcomings in its [high-risk] response procedure got the highest mean of 4.41 with a standard deviation of 0.55, described verbally as “Strongly Agree”. To elaborate further, this was followed by the statement that the organization is committed to correcting any short comings in preventing high risk mistakes ( $M = 4.38$ ,  $SD = 0.55$ ) and the organization’s supervisors and managers accept the advice of employees if they think the employee has a good idea about how to resolve a [high risk] response ( $M = 4.38$ ,  $SD = 0.60$ ). This means that the organization is committed to correcting the nurse leaders’ shortcomings and trusts that they can prevent high-risk mistakes.

On the other hand, the statement that the organization is very concerned about the possibility of making high-risk mistakes got the lowest mean of 4.37 with a standard deviation of 0.54. This means that the organizations are worried about making high-risk mistakes. Since medical errors are a major cause of death, and hospitals are prone to risks. Typical forms of medical risks include errors in surgery, diagnosis, medication, equipment, patient falls, infections acquired in hospitals, and communication breakdowns. Thus, all hospitals have available rules and regulations in risk management.

Table 9  
Relationship Between Leadership Style and HRO Practices

| Leadership Style and High Reliability |               | Pearson $r$ | $p$ -value | Interpretation | Decision | Remarks     |
|---------------------------------------|---------------|-------------|------------|----------------|----------|-------------|
| Self-Efficacy                         | Authoritative | 0.323       | 0.000      | Weak           | Reject   | Significant |
|                                       | Participative | 0.444       | 0.000      | Moderate       | Reject   | Significant |
|                                       | Delegative    | 0.295       | 0.000      | Weak           | Reject   | Significant |
|                                       | Overall       | 0.442       | 0.000      | Moderate       | Reject   | Significant |
| Organizational Risk Response          | Authoritative | 0.219       | 0.001      | Weak           | Reject   | Significant |
|                                       | Participative | 0.248       | 0.000      | Weak           | Reject   | Significant |
|                                       | Delegative    | 0.139       | 0.028      | Weak           | Reject   | Significant |
|                                       | Overall       | 0.267       | 0.000      | Weak           | Reject   | Significant |
| Overall High Reliability              | Authoritative | 0.269       | 0.000      | Weak           | Reject   | Significant |
|                                       | Participative | 0.329       | 0.000      | Weak           | Reject   | Significant |
|                                       | Delegative    | 0.195       | 0.000      | Weak           | Reject   | Significant |
|                                       | Overall       | 0.334       | 0.000      | Weak           | Reject   | Significant |

Reject  $H_0$  if  $p < 0.05$

Legend: -1 perfectly negative; -0.7 to -0.8 strongly negative; -0.4 to -0.6 moderately negative; -0.1 to -0.3 weakly negative; 0 no association; 0.1 to 0.3 weakly positive; 0.4 to 0.6 moderately positive; 0.7 to 0.8 strongly positive; 1 perfectly positive

Table above shows that authoritative has “Weak” ( $R = 0.323$ ,  $p = 0.000$ ); participative has “Moderate” ( $R = 0.444$ ,  $p = 0.000$ ); delegative has “Weak” ( $R = 0.295$ ,  $p = 0.000$ ); and overall leadership style ( $R = 0.442$ ,  $p = 0.000$ ) have positive significant “Moderate” relationship to HRO practices in terms of self-efficacy at 0.05 level of significance. This implies that as authoritative, participative, delegative, and overall leadership style increases, the HRO practices in terms of self-efficacy also increase. The result implies that by establishing definitive standards and duties, the directive-based nature of authoritative leadership may nonetheless promote a certain degree of self-efficacy in some regimented and rule-driven settings.

Moreover, authoritative ( $R = 0.219$ ,  $p = 0.001$ ); participative ( $R = 0.248$ ,  $p = 0.000$ ); delegative ( $R = 0.139$ ,  $p = 0.028$ ); and overall leadership style ( $R = 0.267$ ,  $p = 0.000$ ) have significant positive weak relationship to HRO practices in terms of organizational risk response at 0.05 level of significance. This implies that as authoritative, participative, delegative, and overall leadership style increases, the HRO practices in terms of organizational risk response also increase.

For authoritative leadership ( $R = 0.219$ ,  $p = 0.001$ ), a weak positive correlation indicates that authoritative leadership has a modest influence on improving organizational risk response. This might illustrate the advantages of precise guidance and stringent oversight in risk management in organized settings.

Furthermore, authoritative ( $R = 0.269, p = 0.000$ ); participative ( $R = 0.329, p = 0.000$ ); delegative ( $R = 0.195, p = 0.000$ ); and overall leadership style ( $R = 0.334, p = 0.000$ ) have significant weak positive relationship to overall HRO practices at 0.05 level of significance. This implies that as authoritative, participative, delegative, and overall leadership style increases, the overall HRO practices also increase. These findings are consistent with the body of research on organizational reliability and leadership.

Table 10  
Relationship Between Organizational Culture and HRO Practices

| Organizational Culture and High Reliability |                       | Pearson <i>r</i> | <i>p</i> -value | Interpretation | Decision | Remarks     |
|---|-----------------------|------------------|-----------------|----------------|----------|-------------|
| Self-Efficacy                               | Managing Change       | 0.382            | 0.000           | Weak           | Reject   | Significant |
|   | Achieving Goals       | 0.376            | 0.000           | Weak           | Reject   | Significant |
|   | Coordinating Teamwork | 0.323            | 0.000           | Weak           | Reject   | Significant |
|   | Overall               | 0.433            | 0.000           | Moderate       | Reject   | Significant |
| Organizational Risk Response                | Managing Change       | 0.270            | 0.000           | Weak           | Reject   | Significant |
|   | Achieving Goals       | 0.279            | 0.000           | Weak           | Reject   | Significant |
|   | Coordinating Teamwork | 0.194            | 0.004           | Weak           | Reject   | Significant |
|   | Overall               | 0.297            | 0.000           | Weak           | Reject   | Significant |
| Overall High Reliability                    | Managing change       | 0.378            | 0.000           | Weak           | Reject   | Significant |
|   | Achieving goals       | 0.378            | 0.000           | Weak           | Reject   | Significant |
|   | Coordinating Teamwork | 0.303            | 0.000           | Weak           | Reject   | Significant |
|   | Overall               | 0.424            | 0.000           | Moderate       | Reject   | Significant |

Reject  $H_0$  if  $p < 0.05$

Legend: -1 perfectly negative; -0.7 to -0.8 strongly negative; -0.4 to -0.6 moderately negative; -0.1 to -0.3 weakly negative; 0 no association; 0.1 to 0.3 weakly positive; 0.4 to 0.6 moderately positive; 0.7 to 0.8 strongly positive; 1 perfectly positive

Table above shows that managing change ( $R = 0.382, p = 0.000$ ); achieving goals ( $R = 0.376, p = 0.000$ ); coordinating teamwork ( $R = 0.323, p = 0.000$ ); and organizational culture ( $R = 0.433, p = 0.000$ ) have a significant moderate positive relationship to HRO practices in terms of self-efficacy at 0.05 level of significance. This implies that as managing change, achieving goals, coordinating teamwork, and organizational culture increases, the HRO practices in terms of self-efficacy also increases.

The findings reveal significant relationships between various organizational factors—managing change, achieving goals, coordinating teamwork, and organizational culture—and HRO practices in terms of self-efficacy. Managing change ( $R = 0.382, p = 0.000$ ) exhibits a weak positive correlation, indicating that organizations that are capable of effectively navigating transitions and adapting to challenges are better positioned to enhance self-efficacy among their members. Likewise, there is a weak positive significant correlation between achieving goals (0.376) and coordinating teamwork (0.323), indicating that explicit target-setting and achievement help build the capacity and confidence needed for HRO practices.

The weak positive association shown for coordinating teamwork emphasizes how crucial it is to promote cooperation and unity among teammates to promote self-efficacy in HRO situations. Organizational culture has the highest moderate positive link (0.424), highlighting the importance of a supportive, flexible, and inclusive culture in fostering self-efficacy and individual empowerment in high-reliability businesses. These results are consistent with previous studies that highlight the interaction between self-efficacy and organizational culture

Also, managing change ( $R = 0.270; p = 0.000$ ); achieving goals ( $R = 0.279; p = 0.000$ ); coordinating teamwork ( $R = 0.194; p = 0.004$ ); and overall organizational culture ( $R = 0.297; p = 0.000$ ) have a significant weak positive relationship to HRO practices in terms of organizational risk response. This implies that as managing change, achieving goals, coordinating teamwork, and overall organizational culture increases, the HRO practices in terms of organizational risk response also increases.

Lastly, managing change ( $R = 0.378$ ,  $p = 0.000$ ); achieving goals ( $R = 0.378$ ,  $p = 0.000$ ); and coordinating teamwork ( $R = 0.303$ ,  $p = 0.000$ ) have significant weak positive relationship to overall HRO practices at 0.05 level of significance except for overall organizational culture ( $R = 0.424$ ,  $p = 0.000$ ) which showed a significant moderately positive relationship. This implies that as managing change, achieving goals, coordinating teamwork, and organizational culture increase, the overall HRO practices also increase. These results are in line with research on the dependability and performance of organizations.

Table 11  
Difference in Leadership Style Considering Geographical Distinctiveness

| Geographical distinctiveness |                           | Mean Rank | Kruskal-Wallis $H$ | $p$ -value | Remarks            |
|------------------------------|---------------------------|-----------|--------------------|------------|--------------------|
| Authoritative                | Whites                    | 97.6      | 10.797             | 0.013      | <i>Significant</i> |
|                              | Asians                    | 110.26    |                    |            |                    |
|                              | Black or African American | 140.33    |                    |            |                    |
|                              | Hispanic/Latino           | 151.95    |                    |            |                    |
| Participative                | Whites                    | 101.21    | 2.262              | 0.520      | Not Significant    |
|                              | Asians                    | 113.24    |                    |            |                    |
|                              | Black or African American | 112.11    |                    |            |                    |
|                              | Hispanic/Latino           | 116.77    |                    |            |                    |
| Delegative                   | Whites                    | 103.55    | 0.917              | 0.821      | Not Significant    |
|                              | Asians                    | 111.77    |                    |            |                    |
|                              | Black or African American | 108.67    |                    |            |                    |
|                              | Hispanic/Latino           | 112.36    |                    |            |                    |
| Overall Leadership Style     | Whites                    | 99.74     | 3.831              | 0.280      | Not Significant    |
|                              | Asians                    | 111.03    |                    |            |                    |
|                              | Black or African American | 126.5     |                    |            |                    |
|                              | Hispanic/Latino           | 137.64    |                    |            |                    |

The table above shows that there is a significant difference in the authoritative leadership style ( $H = 10.797$ ,  $p = 0.013$ ) when grouped according to their geographical distinctiveness at 0.05 level of significance. Post-hoc revealed that Hispanics/Latinos ( $Mean Rank = 151.95$ ) have a higher authoritative leadership style as compared to Whites ( $Mean Rank = 97.60$ ). However, participative ( $H = 2.262$ ,  $p = 0.520$ ); delegative ( $H = 0.917$ ,  $p = 0.821$ ); and overall leadership style questions ( $H = 3.831$ ,  $p = 0.280$ ) have no significant difference when grouped according to geographical distinctiveness. This indicates that these leadership styles are perceived or practiced similarly regardless of geographical distinctiveness, reflecting a potential universality in these approaches across diverse cultural backgrounds.



Table 12  
Difference in Leadership Style Considering Job Classification

| Job Classification       |                         | Mean Rank | Kruskal-Wallis $H$ | $p$ -value | Remarks            |
|--------------------------|-------------------------|-----------|--------------------|------------|--------------------|
| Authoritative            | Entry level             | 136.35    | 40.345             | 0.000      | <i>Significant</i> |
|                          | Intermediate level      | 103.69    |                    |            |                    |
|                          | First level management  | 125.85    |                    |            |                    |
|                          | Middle level management | 46.54     |                    |            |                    |
|                          | Senior level management | 14.71     |                    |            |                    |
| Participative            | Entry level             | 97.41     | 47.189             | 0.000      | <i>Significant</i> |
|                          | Intermediate level      | 126.89    |                    |            |                    |
|                          | First level management  | 104.04    |                    |            |                    |
|                          | Middle level management | 21.29     |                    |            |                    |
|                          | Senior level management | 30.5      |                    |            |                    |
| Delegative               | Entry level             | 105.14    | 26.853             | 0.000      | <i>Significant</i> |
|                          | Intermediate level      | 120.47    |                    |            |                    |
|                          | First level management  | 105.97    |                    |            |                    |
|                          | Middle level management | 51.79     |                    |            |                    |
|                          | Senior level management | 26.21     |                    |            |                    |
| Overall Leadership Style | Entry level             | 114.69    | 38.765             | 0.000      | <i>Significant</i> |
|                          | Intermediate level      | 116.23    |                    |            |                    |
|                          | First level management  | 117.81    |                    |            |                    |
|                          | Middle level management | 29.54     |                    |            |                    |
|                          | Senior level management | 13.57     |                    |            |                    |

Table above shows that there is significant difference on the leadership styles of the respondents in terms of authoritative ( $H = 40.345$ ,  $p = 0.000$ ); participative ( $H = 47.189$ ,  $p = 0.000$ ); delegative ( $H = 26.853$ ,  $p = 0.000$ ); and overall leadership style ( $H = 38.765$ ,  $p = 0.000$ ) when grouped according to their job classification at 0.05 level of significance. Post-hoc also reveals that senior level management practice higher authoritative leadership style as compared to entry level ( $p = 0.000$ ); intermediate level ( $p = 0.002$ ); and first level management ( $p = 0.000$ ). Similarly, middle management practice higher authoritative leadership style as compared to entry level ( $p = 0.000$ ); intermediate level ( $p = 0.024$ ); and first level management ( $p = 0.000$ ). Also, intermediate management ( $p = 0.000$ ) has a higher authoritative leadership style as compared to entry level ( $p = 0.029$ ) at 0.05 level of significance.

Moreover, post-hoc also reveals that senior level management practice higher delegative leadership style as compared to intermediate level ( $p = 0.001$ ); and first level management ( $p = 0.039$ ). Similarly, middle management practice higher participative leadership style as compared to entry level ( $p = 0.001$ ); intermediate level ( $p = 0.000$ ); and first level management ( $p = 0.001$ ) at 0.05 level of significance.

Table 13  
Difference in Leadership Style Considering Years in Leadership Role

| Years in Leadership Role |                | Mean Rank | Kruskal-Wallis $H$ | $p$ - value | Remarks            |
|--------------------------|----------------|-----------|--------------------|-------------|--------------------|
| Authoritative            | 0 to 5 years   | 112.37    | 21.129             | 0.000       | <i>Significant</i> |
|                          | 6 to 10 years  | 112.46    |                    |             |                    |
|                          | 11 to 15 years | 104       |                    |             |                    |
|                          | 16 years above | 9.69      |                    |             |                    |
| Participative            | 0 to 5 years   | 110.66    | 22.912             | 0.000       | <i>Significant</i> |
|                          | 6 to 10 years  | 118.33    |                    |             |                    |
|                          | 11 to 15 years | 71.93     |                    |             |                    |
|                          | 16 years above | 23.63     |                    |             |                    |
| Delegative               | 0 to 5 years   | 105.76    | 18.700             | 0.000       | <i>Significant</i> |
|                          | 6 to 10 years  | 120.83    |                    |             |                    |
|                          | 11 to 15 years | 85.97     |                    |             |                    |
|                          | 16 years above | 29.75     |                    |             |                    |
| Overall Leadership Style | 0 to 5 years   | 107.83    | 25.914             | 0.000       | <i>Significant</i> |
|                          | 6 to 10 years  | 120.61    |                    |             |                    |
|                          | 11 to 15 years | 84.03     |                    |             |                    |
|                          | 16 years above | 10.06     |                    |             |                    |

The table above shows that there is significant difference on the leadership styles of the respondents in terms of authoritative ( $H = 21.129$ ,  $p = 0.000$ ); participative ( $H = 22.912$ ,  $p = 0.000$ ); delegative ( $H = 18.700$ ,  $p = 0.000$ ); and overall leadership style ( $H = 25.914$ ,  $p = 0.000$ ) when grouped according to their number of years in leadership role at 0.05 level of significance. Post-hoc also reveals that respondents with 16 years or more of experience practice a higher authoritative leadership style as compared to 0 to 5 years ( $p = 0.000$ ); 6 to 10 years ( $p = 0.002$ ); and 11 to 15 years ( $p = 0.003$ ) at 0.05 level of significance.

Moreover, post-hoc also reveals that respondents with 16 years above experience practice higher participative leadership style as compared to 0 to 5 years ( $p = 0.001$ ); and 6 to 10 years ( $p = 0.002$ ) while 11 to 15 years has higher participative leadership style as compared to 6 to 10 years ( $p = 0.041$ ) at 0.05 level of significance. Furthermore, post-hoc also reveals that respondents with 16 years and above experience practice higher participative leadership style as compared to 0 to 5 years ( $p = 0.005$ ); and 6 to 10 years ( $p = 0.002$ ) at 0.05 level of significance.

Table 14  
Difference in Organizational Culture Considering Geographical Distinctiveness

| Geographical distinctiveness   |                           | Mean Rank | Kruskal-Wallis H | p-value | Remarks         |
|--------------------------------|---------------------------|-----------|------------------|---------|-----------------|
| Managing Change                | Whites                    | 99.49     | 3.338            | 0.342   | Not Significant |
|                                | Asians                    | 114.82    |                  |         |                 |
|                                | Black or African American | 111.33    |                  |         |                 |
|                                | Hispanic/Latino           | 118.09    |                  |         |                 |
|                                |                           |           |                  |         |                 |
| Achieving Goals                | Whites                    | 93.28     | 11.721           | 0.008   | Significant     |
|                                | Asians                    | 116.38    |                  |         |                 |
|                                | Black or African American | 138.06    |                  |         |                 |
|                                | Hispanic/Latino           | 136.50    |                  |         |                 |
|                                |                           |           |                  |         |                 |
| Coordinating Teamwork          | Whites                    | 107.25    | 2.206            | 0.531   | Not Significant |
|                                | Asians                    | 112.25    |                  |         |                 |
|                                | Black or African American | 85.72     |                  |         |                 |
|                                | Hispanic/Latino           | 94.55     |                  |         |                 |
|                                |                           |           |                  |         |                 |
| Overall Organizational Culture | Whites                    | 93.98     | 9.665            | 0.022   | Significant     |
|                                | Asians                    | 117.25    |                  |         |                 |
|                                | Black or African American | 123.33    |                  |         |                 |
|                                | Hispanic/Latino           | 134.59    |                  |         |                 |
|                                |                           |           |                  |         |                 |

The table above shows that there is no significant difference on the organizational culture of the respondents in terms of managing change ( $H = 3.338$ ,  $p = 0.342$ ) and coordinating teamwork ( $H = 2.206$ ,  $p = 0.531$ ); however it shows a significant difference in achieving goals ( $H = 11.721$ ,  $p = 0.008$ ); and overall organizational culture ( $H = 9.665$ ,  $p = 0.022$ ) shows a significant difference when

Table 15  
Difference in Organizational Culture Considering Job Classification

| Job classification             |                         | Mean Rank | Kruskal-Wallis H | p-value | Remarks         |
|--------------------------------|-------------------------|-----------|------------------|---------|-----------------|
| Managing Change                | Entry level             | 100.50    | 32.81            | <0.001  | Significant     |
|                                | Intermediate level      | 121.13    |                  |         |                 |
|                                | First level management  | 113.51    |                  |         |                 |
|                                | Middle level management | 35.21     |                  |         |                 |
|                                | Senior level management | 33.93     |                  |         |                 |
|                                |                         |           |                  |         |                 |
| Achieving Goals                | Entry level             | 118.99    | 18.50            | <0.001  | Significant     |
|                                | Intermediate level      | 113.04    |                  |         |                 |
|                                | First level management  | 107.92    |                  |         |                 |
|                                | Middle level management | 42.75     |                  |         |                 |
|                                | Senior level management | 67.64     |                  |         |                 |
|                                |                         |           |                  |         |                 |
| Coordinating Teamwork          | Entry level             | 106.93    | 5.74             | 0.221   | Not Significant |
|                                | Intermediate level      | 109.67    |                  |         |                 |
|                                | First level management  | 119.35    |                  |         |                 |
|                                | Middle level management | 75.38     |                  |         |                 |
|                                | Senior level management | 84.64     |                  |         |                 |
|                                |                         |           |                  |         |                 |
| Overall Organizational Culture | Entry level             | 111.61    | 32.85            | <0.001  | Significant     |
|                                | Intermediate level      | 118.07    |                  |         |                 |
|                                | First level management  | 111.89    |                  |         |                 |
|                                | Middle level management | 27.29     |                  |         |                 |
|                                | Senior level management | 36.79     |                  |         |                 |
|                                |                         |           |                  |         |                 |

The table above shows that there is significant difference on the organizational culture of the respondents in terms of managing change ( $H = 32.81$ ,  $p = <0.001$ ) and achieving goals ( $H = 18.50$ ,  $p = <0.001$ ) except for coordinating teamwork ( $H = 5.74$ ,  $p = 0.0221$ ) which shows significant difference; and overall organizational culture ( $H = 32.85$ ,  $p = <0.001$ ) when grouped according to their job classification at 0.05 level of significance show significant difference. Post-hoc revealed that middle level management has higher managing change as compared to Intermediate level ( $p = 0.009$ ) respondents while middle level management has higher managing change as compared to intermediate level ( $p = 0.001$ ) and first level management ( $p = 0.021$ ). Similarly, middle level management has higher managing change as compared to intermediate level ( $p = 0.001$ ) and first level management ( $p = 0.024$ ) at 0.05 level of significance.

Table 16  
Difference in Organizational Culture Considering Years in Leadership Role

| Years in leadership role       |                | Mean Rank | Kruskal-Wallis $H$ | $p$ -value | Remarks            |
|--------------------------------|----------------|-----------|--------------------|------------|--------------------|
| Managing Change                | 0 to 5 years   | 109.35    | 13.92              | 0.003      | <i>Significant</i> |
|                                | 6 to 10 years  | 115.90    |                    |            |                    |
|                                | 11 to 15 years | 89.30     |                    |            |                    |
|                                | 16 years above | 35.44     |                    |            |                    |
| Achieving Goals                | 0 to 5 years   | 109.21    | 13.90              | 0.003      | <i>Significant</i> |
|                                | 6 to 10 years  | 111.61    |                    |            |                    |
|                                | 11 to 15 years | 101.47    |                    |            |                    |
|                                | 16 years above | 63.63     |                    |            |                    |
| Coordinating Teamwork          | 0 to 5 years   | 105       | 4.72               | 0.194      | Not Significant    |
|                                | 6 to 10 years  | 116.8     |                    |            |                    |
|                                | 11 to 15 years | 99.5      |                    |            |                    |
|                                | 16 years above | 60.31     |                    |            |                    |
| Overall Organizational Culture | 0 to 5 years   | 111.24    | 18.20              | <0.001     | <i>Significant</i> |
|                                | 6 to 10 years  | 116.29    |                    |            |                    |
|                                | 11 to 15 years | 76.97     |                    |            |                    |
|                                | 16 years above | 30.31     |                    |            |                    |

The table above shows that there is significant difference on the organizational culture of the respondents in terms of managing change ( $H = 13.92$ ,  $p = 0.003$ ); achieving goals ( $H = 13.90$ ,  $p = 0.003$ ); except for coordinating teamwork ( $H = 4.72$ ,  $p = 0.194$ ) which shows no significant difference. Overall organizational culture ( $H = 18.20$ ,  $p = <0.001$ ) when grouped according to their years in leadership role at 0.05 level of significance shows significant difference. Post-hoc revealed that only 16 years old and above are found to have significantly higher coordinating teamwork as compared to respondents with 6 to 10 years of leadership experience.

Table 17  
Difference in HRO Practices Considering Geographical Distinctiveness

| Geographical distinctiveness |                           | Mean Rank | Kruskal-Wallis <i>H</i> | <i>p</i> -value | Remarks         |
|------------------------------|---------------------------|-----------|-------------------------|-----------------|-----------------|
| Self-Efficacy                | Whites                    | 104.3     | 4.534                   | 0.209           | Not Significant |
|                              | Asians                    | 111.71    |                         |                 |                 |
|                              | Black or African American | 78.06     |                         |                 |                 |
|                              | Hispanic/Latino           | 131.36    |                         |                 |                 |
| Organizational Risk Response | Whites                    | 110.3     | 1.188                   | 0.756           | Not Significant |
|                              | Asians                    | 104.77    |                         |                 |                 |
|                              | Black or African American | 101.11    |                         |                 |                 |
|                              | Hispanic/Latino           | 122.59    |                         |                 |                 |
| Overall HRO Practices        | Whites                    | 108.42    | 1.316                   | 0.725           | Not Significant |
|                              | Asians                    | 107.41    |                         |                 |                 |
|                              | Black or African American | 91.44     |                         |                 |                 |
|                              | Hispanic/Latino           | 123.18    |                         |                 |                 |

The table above shows that there is no significant difference on the HRO practices of the respondents in terms of self-efficacy ( $H = 4.534$ ,  $p = 0.209$ ); organizational risk response ( $H = 1.188$ ,  $p = 0.756$ ); and overall HRO practices ( $H = 1.316$ ,  $p = 0.725$ ) when grouped according to their geographical distinctiveness at 0.05 level of significance.

Table 18  
Difference in HRO Practices Considering Job Classification

| Job classification           |                         | Mean Rank | Kruskal-Wallis <i>H</i> | <i>p</i> -value | Remarks         |
|------------------------------|-------------------------|-----------|-------------------------|-----------------|-----------------|
| Self-Efficacy                | Entry level             | 103.89    | 20.587                  | <0.001          | Significant     |
|                              | Intermediate level      | 116.30    |                         |                 |                 |
|                              | First level management  | 112.32    |                         |                 |                 |
|                              | Middle level management | 33.63     |                         |                 |                 |
|                              | Senior level management | 101.64    |                         |                 |                 |
| Organizational Risk Response | Entry level             | 110.92    | 6.280                   | 0.179           | Not Significant |
|                              | Intermediate level      | 103.36    |                         |                 |                 |
|                              | First level management  | 120.29    |                         |                 |                 |
|                              | Middle level management | 85.25     |                         |                 |                 |
|                              | Senior level management | 142.36    |                         |                 |                 |
| Overall HRO Practices        | Entry level             | 110.95    | 6.110                   | 0.191           | Not Significant |
|                              | Intermediate level      | 106.08    |                         |                 |                 |
|                              | First level management  | 118.76    |                         |                 |                 |
|                              | Middle level management | 71.83     |                         |                 |                 |
|                              | Senior level management | 127.93    |                         |                 |                 |

The table above shows that there is a significant difference on the HRO practices of the respondents in terms of self-efficacy ( $H = 20.587$ ,  $p = 0.000$ ); while there is no significant difference in the overall HRO practices ( $H = 10.569$ ,  $p = 0.032$ ) when grouped according to their job classification while no significant difference in terms of organizational risk response ( $H = 6.280$ ,  $p = 0.179$ ); at 0.05 level of significance. Post-hoc revealed that middle management has higher self-efficacy as compared to entry level ( $p = 0.004$ ); intermediate level ( $p = 0.001$ ); and first level management ( $p = 0.000$ ) at 0.05 level of significance.

Table 19  
Difference in HRO Practices Considering Years in Leadership Role

| Years in Leadership Role     |                | Mean Rank | Kruskal-Wallis $H$ | $p$ -value | Remarks            |
|------------------------------|----------------|-----------|--------------------|------------|--------------------|
| Self-Efficacy                | 0 to 5 years   | 111.27    | 10.831             | 0.013      | <i>Significant</i> |
|                              | 6 to 10 years  | 114.25    |                    |            |                    |
|                              | 11 to 15 years | 69.53     |                    |            |                    |
|                              | 16 years above | 67.44     |                    |            |                    |
| Organizational Risk Response | 0 to 5 years   | 96.35     | 8.918              | 0.030      | <i>Significant</i> |
|                              | 6 to 10 years  | 121.92    |                    |            |                    |
|                              | 11 to 15 years | 100.10    |                    |            |                    |
|                              | 16 years above | 108.38    |                    |            |                    |
| Overall HRO Practices        | 0 to 5 years   | 99.79     | 7.129              | 0.068      | Not Significant    |
|                              | 6 to 10 years  | 120.80    |                    |            |                    |
|                              | 11 to 15 years | 91.90     |                    |            |                    |
|                              | 16 years above | 93.63     |                    |            |                    |

Table above shows that there is a significant difference on the HRO practices of the respondents in terms of self-efficacy ( $H = 10.831$ ,  $p = 0.013$ ); organizational risk response ( $H = 8.918$ ,  $p = 0.030$ ); except for overall HRO practices ( $H = 7.129$ ,  $p = 0.068$ ) which shows no significant difference when grouped according to their years in leadership role at 0.05 level of significance. Post-hoc revealed that 11 to 15-year-olds have higher self-efficacy as compared to respondents 6 to 10 years old ( $p = 0.049$ ), while 6 to 10-year-olds have higher organizational risk response as compared to respondents with 0 to 5 years of experience.

#### *Proposed Program*

**Program Title:** Nurse Executive Enhancement Program – Leadership, Culture, and High Reliability Practices (NEEP – LCHRP)

**Program Principle:** Based on the results of the study, it presented the significant relationship between leadership style, organizational culture and High Reliability Organization (HRO) Practices and its impact on the overall effectiveness of nurse leaders.

#### *Overall Program Objective:*

- To develop competencies on various leadership styles, cultivate a strong organizational culture and and fortify High Reliability Organization (HRO) practices using the ESE approach (Enhance – Sustain - Empower).

#### *Specific Program Objectives:*

- To help individuals understand and identify their leadership styles and reinforce them to sustain and strengthen their leadership approaches.
- To cultivate a shared organizational culture that is adaptable, goal orientated and promotes team cohesion.
- To create a sustainable working environment that is focused on creating safe and reliant practices and promotes HRO practices, including self-efficacy and organizational risk response.



| Module Number  | Key Activity Areas   | Methodology   |
|--|--|---|
| <b>Module 1:</b> Leadership Style Customization and Enhancement          | <ul style="list-style-type: none"> <li>• Enhancing authoritative leadership</li> <li>• Sustaining participative leadership</li> <li>• Empowering delegative leadership</li> </ul>  | <ul style="list-style-type: none"> <li>• Interactive activities on redefining leadership partnerships through shared governance activities.</li> <li>• Scenario-based activities on conflict and crisis management.</li> <li>• Hands-on workshops on emotional intelligence, strategic planning, and managing team dynamics.</li> </ul>                                 |
| <b>Module 2:</b> Enhancing Organizational Culture                        | <ul style="list-style-type: none"> <li>• Enhancing managing change initiatives</li> <li>• Sustaining goal-planning activities</li> <li>• Empowering team coordination and cohesiveness</li> </ul>                          | <ul style="list-style-type: none"> <li>• Scenario-based coaching and mentorship sessions.</li> <li>• Cross-cultural small group activities with a focus on teamwork and shared decision-making.</li> <li>• Crisis management exercises and scenario analysis.</li> </ul>  |
| <b>Module 3:</b> Enhancing High Reliability Organization (HRO) Practices | <ul style="list-style-type: none"> <li>• Enhancing self-efficacy</li> <li>• Sustaining risk mitigation initiatives</li> <li>• Empowering HRO leaders on practices, including organized integration and feedback</li> </ul> | <ul style="list-style-type: none"> <li>• Role playing on real-life high-risk scenarios and management</li> <li>• Peer group assessments with a focus on strengthening and empowering self-confidence on job roles and decision-making.</li> <li>• Expert-led activity involving systematic mapping of practices from various job classifications and tenure.</li> </ul> |

#### *Program Execution:*

- A. *Techniques:* On-site coaching and mentoring, Instructor-Led Training (ILT), team-based case studies and role play, online Learning Management Systems (LMS) integration
- B. *Facilitators:* Human Capital learning development team, HRO experts, external guests who are subject matter experts on leadership, organization culture, and HRO training and development
- C. *Timeline:* Total of 3 months for the whole program. Each module will run for a month with 1 to 2 sessions (either in-person or online) per week.
- D. *Evaluation:* Pre and post-test method, module and/or session surveys and program feedback and evaluation.

### *3.2 Discussion*

#### *Extent of Practice in Terms of Authoritative Style of Leadership*

According to Pérez-González et al. (2024), hospitals frequently mandate strict adherence to orders and protocols. Authoritative leaders oversee to make sure all employees comply with such orders to minimize threats of negligence or work errors. On the other hand, where poor performance may affect patient satisfaction and organizational performance, the authoritative leadership style may have an important role in managing employee laziness (Cummings et al., 2020).

According to Rosing et al. (2022); Sarwar et al. (2022); Sanders & Balcom (2021); who explained when situations become critical, authoritative leadership becomes vital, particularly when making independent decisions, making unilateral choices, streamlining communications, assuming full administrative control, and navigating resources effectively. Moreover, in addition to providing advice for workers who are unsure of

their performance, authoritative leaders motivate their teams to perform at their highest level and make sure that everyone is working in the same direction (Yunarshih et al., 2020).

Niinihuhta & Häggman-Laitila (2022), explained that the overall wellness of nurses in the workplace is directly affected by the different leadership styles of nurse leaders in aspects of organizational trust, empowerment, work-life conflict, affectivity, and motivation. Moreover, Hult et al. (2023), further emphasized that specific leadership styles can impact organizational outcomes, patient care-related outcomes, and employee-related outcomes.

#### *Extent of Practice in Terms of Participative Style of Leadership*

According to Oqui et al. (2022), allowing several individuals to take part in the decision-making process is the goal in the healthcare setting. According to Rahman & Ali (2024), it may be enticing for an administrator to want to micromanage each moving component in a fast-paced organizational setting. However, this approach will probably overwhelm nurses as the organization's complexities and team size increase. To do this, a supervisor needs to understand when it is acceptable to actively participate in a task and when to rely on the employees to perform.

Magbity et al. (2020), stated that employee involvement is crucial for fostering positive changes in the workplace. It not only helps in overcoming resistance to change but also increases commitment, trust in management, and productivity. Forbes shares that letting employees help with decisions shows that you trust them.

Moreover, supervisors have a responsibility to achieve the goals of their units and to provide the guidance, support, and training for their staff to ensure that employees can do their jobs. The results revealed that supervisors can help employees take responsibility for their work by providing guidance, support, and training, and by encouraging them to take ownership.

According to Ofei & Paarima (2022), supervisors can assist staff members in accepting responsibility, achieving their objectives, and developing their abilities. They may also offer chances for career development and advancement. By requesting their opinions, expressing gratitude, and giving them authority, managers can inspire their staff to take responsibility. They may additionally encourage staff members to address their issues and engage them in setting and executing objectives.

In the participative style of leadership, the focus is building relationships, communicating openly, enhancing consensus, and promoting engagement through rewarding performances, and it often revolves around the idea of teamwork and trust that works under the same common goal and objectives (Arnold & Fleshman, 2020). Hilton et al. (2021) commented that the participative style of leadership has a direct proportional effect on organizational performance. Moreover, they also argued that in combination with contingent rewarding, it is more likely that the organizational performance will yield better and improved results. Involving key stakeholders in the decision-making process is important in this style of leadership by considering the views and opinions of others before deciding to cascade directions to everyone based on the consensus of the many (Pounder, 2022; Hartley, 2018).

#### *Extent of Practice in Terms of Delegative Style of Leadership*

According to Sudrajat et al. (2020), in hospital settings, the delegating management style makes use of nurses' abilities and talents by assigning them to activities or tasks that are relevant to their jobs. Nurses are urged to engage more in the hospitals by being given tasks, which boosts their self-confidence.

According to Castillo et al. (2021), though this leadership style, administrators show their dedication to the development of their subordinates by involving staff members in performance reviews. Giving staff members detailed and helpful feedback is one way to do this. It can improve morale, foster innovation, and raise responsibility. Give workers the latitude to think about and talk about their own goals. To assist staff in discovering their purposes, supervisors can serve as role models for discussions about meaningful leadership. Also, according to Specchia et al. (2021), most nurses want regular and encouraging interactions from their supervisors, and some also want to work independently. According to Crevacore et al. (2022), letting nurses work independently could work well provided it is paired with regular feedback, standard regulations, and supportive management.

### *Extent of Practice in Terms of Managing Change*

According to [Pérez-González et al. \(2024\)](#), when plans, shifts, and assigned tasks change, nurses need to be prepared to swiftly adapt. They also need to be ready to change courses while working. Plans frequently and swiftly change. Changes in patient status, given responsibilities, shifts, and patient care plans can all occur quickly. To make sure that procedures continue to go smoothly, nurses need to quickly adjust and change their attention. A separate study conducted by [Zaghini et al. \(2024\)](#), revealed that nurses can influence their workplace through their ideas and involvement. this led to creating an atmosphere that encourages organizational collaboration, which could result in improved patient outcomes.

According to [Leep-Lazar & Stimpfel \(2024\)](#), innovation, organizational structure changes, or business model transformations can all lead to disruptive upheaval. These basic adjustments disrupt an organization's business operations. The pace of abrupt shifts at work has increased dramatically in recent years. For hospitals, abrupt adjustments can result in significant cost increases. There are several reasons why nurses are naturally opposed to clinical change. Fear, unpredictability, confusion, discontent, distrust, perplexity, and rage are probably the foundations of changes in nursing.

Moreover, according to [Huang et al. \(2024\)](#), adaptable workers are far more likely to succeed in a setting that is changing quickly. On the other side, flexibility is necessary to deal with unforeseen difficulties and everyday swings. It enables people to work on a variety of tasks, adapt to changing priorities, and cooperate well with other teams. Nurses can gain new knowledge, acquire new abilities, and gain a deeper understanding of their capabilities by adjusting to change. Nurses promote personal development and boost trust in themselves when they embrace change and venture beyond their comfort zones

### *Extent of Practice in Terms of Achieving Goals*

According to [Zaki et al. \(2023\)](#), the culture of an organization establishes standards for how members should act, collaborate, and perform as a team. In this manner, culture may direct decision-making, dissolve barriers across compartmentalized teams, and enhance workflow in general which are important to achieving organizational goals.

Goals and unambiguous expectations are the driving forces of an organizational culture. Employees are encouraged and motivated to be more involved in their professional responsibilities and social relationships as a result. Additionally, it results in strong employee engagement, which boosts output.

Clearly defined goals are goals that a team of people work collaboratively to accomplish. They stand for a common goal that binds the team together. The advantages of having the goals and the organization's goals in line. Both individuals and the organization as a whole benefit from alignment's ability to improve clarity and focus. It helps people better comprehend one another's priorities and how they relate to the overall scheme of things.

According to [Hulkova et al. \(2019\)](#), the team will have an organized strategy for progress and direction due to team goals. Team objectives provide chances to foster cooperation and trust. Team objectives support members' career growth and acquisition of new abilities. Team goals offer a framework for gauging success at both the individual and group levels.

According to [Harhash et al. \(2020\)](#), this kind of misalignment is a frequent problem in businesses. They point out that different goals, resources, and performance criteria throughout departments can result in competing aims. When handled well, these aim conflicts can foster creativity and reduce teamwork while also offering chances for creative solutions ([Ekasari et al., 2020](#)). As recommended by [Harhash et al. \(2021\)](#), work on synchronizing goals using scoring systems, the lack of psychologically driven language or advocacy for particular solutions guarantees a descriptive tone, offering a balanced as the basis for examining the reasons, effects, and approaches to address the problem at hand. This impartiality grounds the observation in known literature and allows for an objective discussion.

### *Extent of Practice in Terms of Coordinating Teamwork*

According to [Purwanto et al. \(2020\)](#), teamwork and effectiveness across an organization can be greatly impacted by organizational culture. The foundation of a good corporate culture is the shared values and beliefs of its workforce. Employees can achieve their objectives and find job satisfaction by adhering to these values. Their beliefs and behaviors are influenced by organizational culture, which gives them a shared identity. Teamwork is enhanced as a result, and workers may feel more connected and have cordial, friendly relationships.

For nurses, teamwork is crucial as it enhances the care of patients, job satisfaction, and the medical sector. In the healthcare industry, teamwork uses teamwork and improved communication techniques to broaden the conventional responsibilities of medical professionals and make decisions as a group that strives for a common objective ([Hsiung et al., 2021](#)).

Teamwork in nursing is crucial to delivering high-quality patient care and results since organized health care delivery is teamwork. Nurses may develop personally as well as professionally by encouraging transparency, improving communication, and creating a supportive workplace ([Silva et al., 2021](#)). On the other hand, the statement that people lack the interpersonal and technical skills they need to work effectively in teams got the lowest mean of 1.92 with a standard deviation of 1.00. This shows that the nurse leaders are competent in their interpersonal and technical skills.

Many factors, such as a lack of confidence and preparedness, might contribute to a nurse's lack of technological and interpersonal abilities. Nonetheless, to perform efficiently and give patients high-quality care, nurses must possess these abilities ([Jafarpanah & Rezaei, 2020](#)).

They support an efficient and upbeat environment at work in addition to improving individual performance. Nurses may greatly improve job prospects and position themselves as an important resource to their firms by making these skills a priority while continually improving them ([Muhalli et al., 2024](#)).

### *Level of Practice in Terms of Self-Efficacy*

Fostering HRO practices requires high levels of self-efficacy, especially in high-stakes settings like the healthcare industry. According to [Ragab et al. \(2024\)](#), in the self-efficacy hypothesis, people who have high levels of self-efficacy are more likely to set difficult objectives, persevere through setbacks, and put up constant effort to succeed. High self-efficacy nurses show confidence in their clinical skills, decision-making, and capacity to handle complicated situations, which improves organizational reliability in the healthcare setting.

According to a study by [Ali & Helal \(2019\)](#), healthcare workers who have confidence in their abilities are more likely to take proactive measures to solve problems and uphold safety standards, which are characteristics of HROs. Self-efficacy helps healthcare professionals adjust to changing circumstances and reduce mistakes, guaranteeing high standards of patient care. These findings highlight how important it is to raise nurses' self-efficacy as a starting point for successfully adopting and maintaining HRO practices.

Nurse leaders are frequently at the forefront of risk management procedures in healthcare as practitioners and representatives of patients. In addition to helping to create and execute safety procedures that safeguard both patients and employees, they serve as role models for their organizations ([Jun et al., 2021](#)).

According to [Zaghini et al. \(2024\)](#), the nurses' opinions in setting objective targets that could take a long time to achieve must be considered in long-term planning. Its main focus is on accomplishing goals for the anticipated future.

### *Level of Practice in Terms of Organizational Risk Response*

According to [Ibrahim & Aitken \(2021\)](#), an activity that involves uncertainties that could affect the ability of the hospitals to meet its goals and objectives—more especially, the organization's ability to adhere to all the regulations, laws, policies, and procedures—is considered high risk. This can be a method, department, or function. Avoiding entails removing the danger or its sources or altering the strategy to prevent exposure to

the risk. For significant impact and high-probability risks, this is a good approach, but it might necessitate major adjustments to the scope, timeline, budget, or quality.

For hospitals to handle consumer complaints, suggestions, and issues, remediation is essential. Organizations increase customer pleasure, cultivate loyalty, and create enduring relationships by addressing shortcomings and enhancing quality. Corrective measures are intended to address and rectify subpar performance by employees. Supervisors and managers must confer with labor relations and staff members before implementing any corrective measures.

According to [Sperling \(2021\)](#), instead of acting as a kind of retribution, the main objective of corrective measures is to help people better their performance and conduct. Preventive actions, when used properly, warn of penalties for noncompliance and establish simple requirements for staff members. Regular interaction among all parties involved and integration of various coaching and training are all necessary for an efficient remedial process. Directly managing these procedures is ineffective, time-consuming, and frequently error-prone.

According to [Han et al. \(2022\)](#), hospitals have interventions ready to address potential dangers within the organization. A hospital may respond to high risk by developing and implementing a risk management strategy. A hospital's risk tolerance is the level of danger it is willing to accept. It can vary within and between organizations based on their missions and aims.

The process of locating, evaluating, and reacting to risk factors that could impede organizational goals is known as risk management. It assists in estimating the uncertainties and forecasting their effects, providing organizations with a foundation for decision-making.

Financial losses, problems with compliance, interruptions to operations, and harm to one's reputation are all examples of organizational risk ([Zaghini et al., 2024](#)). Hospitals are in charge of actively safeguarding the organization and its employees in addition to adhering to legal requirements. The organization's degree of safety will increase if risks and hazards are identified, their seriousness is evaluated, and they are then properly controlled.

#### *Relationship Between Leadership Style and HRO Practices*

According to [Djourova et al. \(2020\)](#), management and other external factors have a big impact on self-efficacy, or the conviction that one can do tasks. Employee performance is facilitated by leaders who instill confidence and offer clear direction, especially in high-stakes settings like HRO corporations. According to [Logan-Athmer \(2022\)](#), a key component of HRO's is management. Reliability under trying circumstances depends on a culture of resiliency and accuracy, which is fostered by leaders who empower teams and encourage adaptable problem-solving.

According to [Ntafopoulou et al. \(2024\)](#), delegative leadership encourages employee participation and shared responsibility. Despite having a less noticeable effect on self-efficacy than participative leadership, it is nonetheless a crucial tactic for fostering cooperation and trust. According to [Veazie et al. \(2022\)](#), authoritative leadership may function well in settings that demand rigorous control and protocol observance. This confirms a lower but still discernible positive association among HRO practices and authoritative management.

One way to improve risk management response, according to the overall leadership style, is to combine different leadership philosophies, as indicated by the largest positive connection between the variables. This emphasizes how crucial flexibility and equilibrium are in leadership techniques when dealing with difficult problems. [Niinihuhta & Häggman-Laitila \(2022\)](#) stress the importance of strong leadership in high-risk situations. Teams can overcome uncertainty and enhance resilience when leaders strike a balance between decisiveness and teamwork.

Authoritative leadership can work well in emergency scenarios that call for prompt decision-making and rigorous procedural adherence, as claimed by [Castillo et al. \(2021\)](#). This is consistent with the association that has been found, which states that organizational risk response is modestly supported by authoritative leadership.

Participative leadership, according to [Hult et al. \(2023\)](#), improves an organization's ability to change by encouraging candid communication and teamwork. This demonstrates how participative leadership and risk response are more closely related.



Participative leadership ought to be given top priority in organizations to increase dependability and self-efficacy. While authoritative leadership has its place, particularly in high-control scenarios, it should be balanced with participative elements to foster team engagement and confidence. Training programs for leaders should emphasize flexibility, adaptability, and the ability to employ varied leadership styles based on situational needs. Moreover, according to [Hilton et al. \(2021\)](#), it promotes open discourse and engagement, which raises team spirit and efficiency. This supports the conclusion that HRO practices are most strongly associated with participative management.

According to [Specchia et al. \(2021\)](#), delegative leadership encourages team members to share their viewpoints, which in turn raises risk awareness. Even while it might not have as much of an immediate effect, it is nevertheless important in creating a shared responsibility culture.

The significance of adaptable and integrated leadership in HROs is emphasized by [Magbity et al. \(2020\)](#). In line with the correlation found between overall leadership style and risk response, leaders who are able to modify their approach to suit the needs of the moment are better able to handle risks.

To improve organizational risk response, organizations ought to foster an even leadership style that incorporates directive and collaborative components. The goal of training programs for leadership should be to give leaders the ability to modify their approach according to the demands of their organization and the type of risks they face.

While [Sudrajat et al. \(2020\)](#) emphasize the value of authoritative leadership in guaranteeing compliance with rules and regulations in high-risk situations, [Ofei & Paarima \(2022\)](#), emphasize the crucial role that leadership plays in promoting awareness and accuracy in high-reliability businesses.

According to [Crevacore et al. \(2022\)](#), participative leadership is beneficial for encouraging flexibility and teamwork, two qualities that are essential for HRO success. Delegative leadership improves the resilience of organizations by fostering various viewpoints and teamwork, according to [Pérez-González et al. \(2024\)](#), through its direct influence on HRO practices might not be as great as that of other leadership philosophies. Furthermore, [Leep-Lazar & Stimpfel \(2024\)](#), stressed that the best way to handle the complexity of HROs is to use a flexible leadership style that combines participative, delegative, and authoritative aspects.

According to these results, executives in HROs should embrace a unified and flexible leadership style to maximize performance and dependability. While authoritative leadership can guarantee conformity in regulated situations, participative leadership should be given priority to promote cooperation and engagement. Even though it does not have as much influence by itself, delegative leadership is crucial to productive team relations. The goal of leadership training should be to create flexible leaders who can strike a balance between autonomy, inclusion, and control so that organizational practices are dependable and flexible enough to meet changing needs.

#### *Relationship Between Organizational Culture and HRO Practices*

According to [Memar Zadeh \(2023\)](#), external variables like organizational support and structure have a major impact on self-efficacy and are essential for building employees' confidence.

Successful change management is crucial, according to [Wong & Gopal \(2024\)](#), who also points out that flexible companies are better able to handle complexity and sustain high performance. In a similar vein, [Sanders & Balcom \(2021\)](#), highlight how goal setting can boost self-belief and drive, both of which are critical for maintaining institutional practices' dependability. According to [Sabbah et al. \(2020\)](#), a strong corporate culture may support employees' positive attitudes and sense of self-efficacy. It also emphasizes the importance of psychological security and teamwork in promoting confidence and teamwork.

In actuality, companies seeking to improve self-efficacy in HRO environments ought to concentrate on cultivating a supportive and flexible culture. To increase employee trust and adaptability, leaders ought to set a high priority on well-defined goals, efficient change management, and harmonious teamwork. Furthermore, fostering an inclusive, innovative, and collaborative organizational culture will reinforce the groundwork for HRO practices. These elements ought to be emphasized in organizational approaches and training initiatives to guarantee long-term success and staff empowerment in High-Reliability organizations.



According to [Yunarshih et al. \(2020\)](#), companies may navigate uncertainty and adjust to risks with the help of competent change management, which guarantees ongoing performance and dependability. [Huang et al. \(2024\)](#), emphasized the value of psychological security and teamwork in fostering cooperation and problem-solving, two skills that are essential for risk response.

However, businesses ought to set a high priority on building change management skills that enable them to respond swiftly and effectively to changing issues to improve organizational risk response in HRO environments. Collaborative efforts to manage risks will be improved by encouraging collaboration through improved communication, shared responsibility, and mutual trust. Additionally, encouraging an organizational culture that is flexible and resilient would enable staff members to proactively identify and reduce risks. When combined with focused training and leadership development, these tactics can greatly improve the organization's overall ability to respond to risks.

Effective change management is crucial for businesses to adjust to complexity and sustain high performance, as [Rui & Qi \(2021\)](#) emphasize. This demonstrates even further how corporate culture shapes behaviors, builds resilience, and guarantees long-term success in high-reliability environments.

Organizations ought to focus on creating strong change management plans that promote resilience and adaptation to improve overall HRO practices. Establishing attainable objectives will help to focus organizational efforts and improve attention. Reliability will be further reinforced by fostering teamwork through cooperation, building confidence, and clear communication. Additionally, fostering a strong organizational culture that promotes innovation, inclusivity, and accountability will serve as a foundation for HRO practices. Leadership training and targeted interventions in these areas can significantly improve organizational performance and reliability.

#### *Leadership Style and Geographical Distinctiveness*

The findings align with Pounder's (2022), Cultural Dimensions Theory, which suggests that cultures with higher power distance, often associated with certain ethnic groups, may lean toward more hierarchical and authoritative leadership styles. Similarly, [Hartley \(2018\)](#), notes that collectivist cultures, which may include Hispanic/Latino communities, often value authority and structure in leadership, which aligns with the observed preference for authoritative leadership. In contrast, the lack of significant differences in participative and delegative leadership styles supports research by [Usmani \(2022\)](#), which suggests that these styles are more influenced by individual leadership philosophies and situational factors than by geographical distinctiveness.

Practically, these findings emphasize the importance of cultural competence in leadership. Organizations should be mindful of cultural preferences and sensitivities when developing leadership training programs or managing diverse teams. Recognizing the diversity in leadership tendencies can also help tailor approaches to better align with team dynamics and organizational goals while promoting inclusivity and equity.

#### *Leadership Style and Job Classification*

The results are in line with literature that suggests higher levels of management tend to adopt more directive and control-oriented leadership styles ([Arnold & Fleshman, 2020](#)), often due to their greater responsibility and accountability in organizational decision-making.

These findings highlight how leadership style is influenced by job classification. Concerning the situation and the type of decision being made, upper and middle management frequently combine authoritative, participatory, and delegative leadership styles. Conversely, lower-level management might be more concerned with execution, which would increase their dependence on authoritative leadership. These results imply that leadership styles are not set in stone but rather change based on the job function and the particular duties and obligations that go along with it. These results align with studies suggesting that higher management positions tend to adopt more inclusive and participative leadership styles to promote collaboration, foster engagement, and address organizational challenges ([Hilton et al., 2021](#)). Other research finding suggests that those in higher management roles tend to engage in participative decision-making processes, which can empower teams and foster collaborations ([Rosing et al., 2022](#)).

The ways that different job classifications vary in their leadership styles can offer important information for creating leadership development programs. Companies can customize leadership development programs to encourage a flexible and balanced strategy for leadership at all levels, assisting managers at various levels in coordinating their leadership philosophies with company objectives and encouraging diversity and cooperation throughout the process.

#### *Leadership Style and Years in Leadership Role*

The results revealed that people who have more experience may take on a more directive and authoritative leadership style. This is probably because experience comes with more duty and accountability. The necessity for effective decision-making and control in intricate organizational settings may be the source of the propensity for authoritative leadership (Sabbah et al., 2020).

According to the findings, people may be more likely to use inclusive and delegative leadership styles as their careers develop. In order to increase team involvement and enhance problem-solving skills, more seasoned leaders might see the benefits of cooperation and shared decision-making (Specchia et al., 2021).

However, this lends credibility to the notion that people may grow more skilled at including others in the decision-making process as they gain experience, creating an atmosphere that is more welcoming and encouraging. According to Williams et al. (2020), these leadership styles are frequently linked to increased degrees of trust and creativity, as well as better organizational performance and satisfaction.

These results demonstrate how leadership styles change as people acquire experience. Based on the requirements of their positions, seasoned managers are likely to combine elements of authoritative and participative leadership styles, striking a balance between inclusiveness and effectiveness. On the other hand, as they gain knowledge and self-assurance, less seasoned leaders could depend more on directive methods.

The findings highlight how crucial experience is in forming leadership traits. Organizations can benefit from providing leadership development programs that support the growth of adaptive leadership styles over time. Encouraging the use of participative and delegative leadership approaches as individuals gain experience can enhance team collaboration, foster innovation, and improve overall organizational effectiveness.

#### *Organizational Culture and Geographical Distinctiveness*

The result suggests that these aspects of organizational culture are perceived similarly across different ethnic groups, highlighting a possible universality in how individuals approach change management and teamwork, regardless of their cultural background. Furthermore, the notable differences in these domains imply that cultural elements might influence how people from various ethnic backgrounds view the significance of establishing objectives in an organization and the work setting in general.

These results might be consistent with Damiani's (2021) research, which suggested that cultural factors like power distance and individuality versus collectivism might impact organizational behaviors and attitudes. For instance, more collaborative cultures might place more emphasis on teamwork and collective objectives, which may have an impact on how people from different ethnic groups view the corporate culture in terms of achieving goals. On the other hand, the lack of notable variations in the areas of managing change and coordinating teamwork may indicate that these organizational culture components are more widely recognized and applied by different ethnic groups, maybe as a result of their more methodical and structured character.

Geographical distinctiveness and cultural background have a major impact on organizational behaviors, such as goal achievement and general corporate culture, according to Sarwar et al. (2022). Ethnic groups' differing beliefs, communication preferences, and power structures might affect how staff members prioritize and approach company objectives. This is consistent with the notable variations in goal attainment and organizational culture that have been noted according to geographical distinctiveness.

Usmani (2022), emphasizes how common presumptions, attitudes, and beliefs—which can differ greatly among various ethnic groups—shape organizational culture. While common organizational strategies may be used to manage change and coordinate teamwork, attaining objectives frequently reflects underlying cultural nuances, such as individualistic versus collectivistic tendencies, which can result in notable variances when grouped by geographical distinctiveness.

Ethnic variety can result in different viewpoints on organizational aims and procedures, as discussed by Sperling (2021). According to this research, diverse teams frequently approach goals differently, which can have an impact on both goal achievement and the culture of the company as a whole. The lack of notable disparities in standardized procedures like change management and teamwork coordination may be explained by the fact that these differences are less noticeable there.

Overall, these results suggest that while geographical distinctiveness may influence some aspects of organizational culture, other aspects, such as managing change and coordinating teamwork, are less dependent on cultural background, reflecting the universal nature of these organizational practices. Understanding these differences can help organizations develop more culturally sensitive approaches to leadership and organizational culture, ensuring that all employees feel valued and supported in their work environment.

#### *Organizational Culture and Job Classification*

The results imply that job categorization has a significant impact on how various employee levels view organizational culture, especially when it comes to achieving goals, managing change, and the culture of the entire company.

People in various positions might encounter and view organizational culture about these aspects differently, as indicated by the notable disparities in managing change and achieving goals. Higher-level management, for example, might place greater emphasis on managing organizational change and accomplishing strategic goals, whereas lower-level staff members might be more concerned with their daily responsibilities and specialized positions. These results support the notion that organizational culture is not a single entity but rather changes according to the precise functions and degree of responsibility assigned to every job classification (Damiani, 2021).

Specchia et al. (2021), highlight that the underlying organizational culture, which differs among organizations, frequently has an impact on managing change. Particularly in diverse work situations, disparities in the way change is viewed, conveyed, and executed can result in notable differences. This supports the conclusion that respondents varied significantly in how they handled change.

According to Pérez-González et al. (2024), motivation, cultural values, and personal success views are all strongly related to achieving goals. The notable variations seen in this area may be explained by the ways that ethnic and cultural diversity might affect how people prioritize and work toward organizational goals.

The substantial variation in overall corporate culture emphasizes even more how job classification affects employees' perceptions of the larger organizational environment. Various levels of involvement, decision-making power, and exposure to various organizational components may be reflected in this, as these factors can influence how people view and participate in the culture of the organization. These results demonstrate how crucial job classification is in influencing how people perceive company culture. Organizations can adjust their leadership, communication, and culture-building tactics to better suit the requirements and experiences of workers at all levels by knowing how various job levels view important cultural components like goal-setting, change management, and teamwork.

#### *Organizational Culture and Years in Leadership Role*

These findings suggest that as individuals accumulate more leadership experience, their understanding and perception of organizational culture evolve, particularly in terms of managing change, achieving goals, and the overall environment within the organization. This might additionally indicate that teamwork is seen as a fundamental component of organizational culture that is constant throughout experience phases or that the value of cooperation and teamwork could be recognized throughout all leadership experience levels.

The notable distinctions between managing change and achieving goals indicate that people's perceptions of an organization's change and goal-setting strategies are significantly influenced by leadership experience. In comparison with leaders with fewer years of experience, more seasoned leaders may have a wider viewpoint on achieving targets and change management because they have probably handled these procedures more often. These people might view change management as more complex and dynamic, and they would understand that reaching corporate objectives requires a coordinated strategy. Organizational culture changes with leadership experience, according to [Specchia et al. \(2021\)](#), with more seasoned leaders having a bigger say in how the culture is shaped and adjusted to fit environmental demands.

The notable variation in overall organizational culture emphasizes even more how leadership experience affects how the organization's culture is seen more broadly. The beliefs, customs, and behaviors of the organization—all essential elements of organizational culture—may be better understood by leaders with more years of experience ([Sabbah et al., 2024](#)). This can result in a more thorough and nuanced understanding of the organization's operations and how its culture fits with its objectives.

These results demonstrate how crucial leadership experience is in influencing how people view corporate culture. Leaders who have more experience tend to grasp corporate culture more strategically and intricately, especially when it comes to managing change and accomplishing objectives. Teamwork coordination, on the other hand, seems to be a more widely accepted feature of organizational culture that is not greatly impacted by leadership experience. Comprehending these distinctions can assist businesses in offering leadership development opportunities that improve leaders' capacity to successfully negotiate and influence corporate culture.

#### *HRO Practices and Geographical Distinctiveness*

These results suggest that geographical distinctiveness does not have a significant impact on how respondents perceive or implement HRO practices, such as self-efficacy, responding to organizational risks, or the overall reliability practices within the organization. It implies that these practices are likely viewed and applied similarly across different ethnic groups, highlighting the universal nature of these organizational principles.

The lack of significant differences may indicate that HRO practices, which often require standardized processes and systems to ensure safety, quality, and performance, are recognized and valued similarly regardless of cultural or ethnic backgrounds. This could be in line with research on the standardization of HRO practices, where the focus tends to be on universal principles and procedures designed to minimize errors and maintain organizational efficiency ([Williams et al., 2020](#)).

According to [Magbity et al. \(2020\)](#), organizational risk response and other HRO practices are based on established procedures intended to reduce variability and guarantee dependability. When categorized by geographical distinctiveness, these practices are usually consistent across organizational units, which could account for the absence of notable variations. Also, according to [Yunarshih et al. \(2020\)](#), established practices such as HRO principles frequently cut across cultural boundaries, even if cultural variations might affect attitudes and behaviors in businesses. Regardless of ethnic background, these procedures are intended to be universally applicable and produce comparable results, which is consistent with the findings that there are no appreciable differences in overall HRO practices.

In conclusion, while geographical distinctiveness can influence certain aspects of organizational culture or leadership styles, it does not appear to affect the implementation or perception of HRO practices. This suggests that the principles of HRO are perceived as equally important and effective across diverse ethnic groups, underscoring the emphasis on operational consistency and safety in such environments.

#### *HRO Practices and Job Classification*

These results could indicate that individuals in middle management positions feel more confident in their ability to perform their tasks and influence outcomes within the organization. As middle managers are typically involved in decision-making processes and bridging the gap between senior leadership and front-line employees, they may have greater autonomy and responsibility, which can enhance their sense of self-efficacy.

However, there were no apparent shifts in the organizational risk response, suggesting that respondents' perceptions and approaches to risk management inside the company are not considerably impacted by their job classification. This implies that corporate risk response might be uniform across job categories, with all staff members expected to follow comparable risk management practices and guidelines.

The fact that there are no appreciable differences in overall HRO practices suggests that, although job classification may affect some factors, such as self-efficacy, it has little effect on how HRO practices are implemented or perceived overall. The result may indicate that HRO practices are widely ingrained in the culture and framework of the company and that workers of all job classifications may be aware of and follow these procedures.

Furthermore, the lack of discernible variation in risk management's response shows that risk management is probably engrained in the culture of the company and required of all workers, independent of their position in the hierarchy. According to [Sabbah et al. \(2024\)](#), this is consistent with the HRO concept that all workers, no matter their position, are accountable for recognizing and controlling risks.

According to [Ofei & Paarima \(2022\)](#), job categories establish responsibilities and expectations, which affect how people think and act. While typical organizational processes may not change across job categories, disparities in self-efficacy may be influenced by variations in role complexity, decision-making authority, and skill requirements.

[Maelany et al. \(2022\)](#) point out that in order to preserve organizational dependability and reduce variability, HRO practices are made to be universally implemented across various job functions. This may help to explain why, despite variances in self-efficacy according to job categorization, there are not any notable differences in total HRO practices.

While self-efficacy varies significantly across job classifications, particularly with middle management having higher self-efficacy compared to other groups, organizational risk response and overall HRO practices do not exhibit significant differences based on job classification. These results underscore the importance of job roles in shaping employees' confidence in their work but suggest that key HRO practices, such as organizational risk response and overall HRO practices, are consistently valued across the organization.

#### *HRO Practices and Years in Leadership Role*

This finding is consistent with [Williams et al. \(2020\)](#), which suggests that individuals with more experience are likely to have higher self-confidence and belief in their abilities to perform tasks and achieve outcomes. As individuals gain experience, their confidence in managing complex tasks increases, leading to higher levels of self-efficacy.

In addition, the data showed that participants with 6–10 years of experience had a larger organizational risk response than those with 0–5 years. This may indicate that those with moderate expertise have improved their abilities and approaches to handling risks in the workplace. This is consistent with the idea that leaders' proficiency in risk management advances with increased exposure to various situations and problems ([Damiani, 2021](#)). Those with six to ten years of experience may have gained enough knowledge and expertise to manage risks more skillfully than those who are just starting in management.

Generally, HRO practices, on the other hand, did not differ significantly ( $H = 7.129, p = 0.068$ ), indicating that all groups apply HRO practices similarly overall, irrespective of the number of years of managerial experience. This may suggest that to guarantee safety, dependability, and consistency, HRO practices are consistently implemented across managerial levels and are ingrained in the culture of the company.

The results demonstrate that years in a leadership role have a significant impact on organizational risk response and self-efficacy but not on the general implementation of HRO practices. Although HRO practices are uniform across managerial levels, this supports the idea that experience changes individual leadership capacities, especially in controlling self-efficacy and responding to risks. These findings are consistent with research that indicates tenure and previous experience boost an individual's self-assurance and proficiency in organizational practices while upholding the fundamentals of HROs at all kinds of management ([Sarwar et al., 2022](#)).



## 4 Conclusion

The study revealed key insights into the leadership styles, organizational culture, and HRO practices of nurse leaders in a selected healthcare organization in the Middle East, considering the demographic profiles of geographical distinctiveness, job classification, and years in leadership role. Participative leadership was very highly practiced, while authoritative and delegative styles were highly practiced. Additionally, organizational culture was highly practiced. Both self-efficacy and organizational risk response were very highly rated about HRO practices. These results emphasize how crucial company culture and leadership style are to improving the nurse leaders' HRO practices.

The result of the study emphasized the important connections between organizational culture, leadership styles, and HRO practices, specifically in the areas of organizational risk response and self-efficacy. Organizational culture (managing change; achieving goals; and coordinating teamwork), leadership styles (authoritative; participative; and delegative) have a favorable impact on HRO practices (self-efficacy and organizational risk response),

Lastly, HRO practices and leadership styles are also influenced by demographic variables, including geographical distinctiveness, job classification, and years of leadership experience. Stronger leadership exhibited by senior and middle management improves organizational risk response and self-efficacy. These results highlight how important company culture and leadership are to promoting HRO practices.

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