Inclusive Leadership and Cultural Intelligence as an Approach for Fostering Nurses' Voice Behavior

Wafaa Mohamed Shokry [1], Safia, Samir Darwish[2], Enas Elsayed Elsawah[3]

[1] Assistant Professor of Nursing Administration, Faculty of Nursing, Menoufia University, Egypt.
[2,3]Lecturer of Nursing Administration, Faculty of Nursing, Menoufia University, Egypt.

Corresponding Author: Wafaa Mohamed Shokry
E-mail: drwafaashokry88@gmail.com,

Abstract

Background: Nurses' voice behavior considered a crucial measure of organizational development. It is influenced by several behaviors, including inclusive leadership and cultural intelligence, which in turn promote voice behavior for improving organizational effectiveness. **Aim:** This study aimed to examine nurses 'perspective of inclusive leadership and cultural intelligence as an approach for fostering their voice behavior. **Subjects and Method: Design:** A descriptive correlational research design. **Subjects:** A simple random sample of 428 staff nurses were recruited from Teaching Hospital, at Shebin El-Kom, Egypt. **Tools:** Three instruments were; Inclusive Leadership questionnaire, Cultural Intelligence, and Voice Behavior Scales. **Results:** The study results revealed the highest percent of studied staff nurses reported that inclusive leadership, cultural intelligence and voice behavior were moderate levels. **Conclusion:** Based on the study findings, there was a high significant correlation between total inclusive leadership and total voice behavior among studied staff nurses at $p<0.0001$. Also, there was a high positive significant correlation between total cultural intelligence and total voice behavior among studied staff nurses at $p<0.0001$. **Recommendation:** Training sessions were undertaken to enhance inclusive leadership, cultural intelligence and nurse's voice behavior through training of nurse managers and staff nurses on cognitive and behavioral skills.

Keywords*:* Culture Intelligence, Inclusive Leadership, Nurses' Voice Behavior.

Introduction

Proactive employee behaviors are essential for the survival, adaptation, and success of organizations in today's increasingly culturally dynamic business environment. One such proactive work behavior that has garnered significant scholarly attention is voice behavior. The act of an employee voicing out about ideas, suggestions, or concerns regarding work-related matters with the intention of improving their organization or unit is known as voice behavior **(Yuan, et. al., 2023)**.

Voice behavior is divided into two categories; promotive voice, which concentrates on making suggestions, supporting, and encouraging people and pushing them to take constructive acts or reach their potential, and prohibitive voice, which emphasizes giving others early warnings and advice to stop them from engaging in harmful or negative behaviors **(Jiang et al., 2023)**.

In the long term, voice behavior can improve organizational effectiveness by exactly meeting the psychological demands of nurses for competence and autonomy. This provides the groundwork for encouraging nurses to proactively voice their opinions **(Li, et al., 2023)**.According to social cognitive theory, the behavior of individuals is impacted by

situational stimuli. Therefore, nurses' voice behavior is influenced by the behavior or style of leaders, particularly when an inclusive leadership approach is relationship-oriented (**Schunk & DiBenedetto, 2020)**.

A key crucial to nurses' voice behavior is inclusive leadership. Nurses' voice is a type of extra-role interpersonal communication behavior in which members of an organization take the initiative to offer constructive ideas and opinions to those in positions of authority in order to improve their work (**Schunk & DiBenedetto, 2020)**. The cognitive-affective system theory of personality (CASTP) states that inclusive leadership, a contextual variable of great importance within an organization, is likely to influence nurses' voice behavior through an indirect effect on their memory and emotions **(Farago & Buzas, 2023)**.

The concept of "inclusiveness" into leadership studies that the idea of inclusive leadership emerged. Inclusive leadership defined as a leadership style in which managers exhibit skill at listening to their followers' viewpoints and value their contributions. Among developing leadership styles, inclusive leadership is beneficial because it places a strong emphasis on developing connections with subordinates and encourages nurses to actively participate in the organization. Inclusive leadership focuses on building trusting relationships between nursing managers and organization nurses. It is thought to have a significant impact on nurses' organizational identification (**Elsaied, 2020)**.

The cornerstone of inclusive leadership is treating individuals fairly based on their unique characteristics rather than acting on biases stemming from stereotypes. In order to guarantee that varying perspectives are recognized, appreciated, managed, and used, inclusive leadership is crucial **(Uthayasuriyan & Murugesan, 2020)**.

The relationship between inclusive leadership and nurses' voice behaviors has been established, based mostly on the ideas of social exchange, social identity, and fundamental need satisfaction **(Younas et al., 2023)**. On the one hand, inclusive leaders value nurses' participation in organizational management and encourage their innovative ideas. By building trust, this method increases nurses' sense of empowerment in the workplace **(Farago & Buzas, 2023)**.

Nurses are more driven to improve their productivity at work by contributing new ideas and providing advice on precautions **(Khan et al., 2020)**. They sincerely think that their voice is legitimate and powerful. As a result, these nurses are willing to support their organization's overall advancement **(Wahab & Khan Bangash, 2021)**.

To effectively work in multicultural organizations, nurses must understand different cultural rules and norms, and behave in a culturally appropriate manner. According to the Center for Advanced Research on Language Acquisitions, culture is defined as common patterns of behavior and interaction, socialization-derived cognitive constructs and understandings, and the skills and abilities needed to relate to others and function well in a given cultural context **(Bratianu, Prelipcean, & Bejinaru 2020)**.

This cultural context includes cultural intelligence which enables individuals to work efficiently in complex environments, the cultural intelligence (CQ) refers to the capacity of an individual to operate and manage efficiently in cross-cultural contexts (**Ang et al., 2020)**. Culturally intelligent nurses are able to communicate across cultural boundaries and feel more comfortable

expressing up to or engaging in a voice behavior **(Ng et al., 2019)**.

The general idea of cultural intelligence, which consists of motivational, behavioral, cognitive, and metacognitive dimensions related to cross-cultural relationships. Particularly, employees with high levels of cultural intelligence actively assess and modify their mental models before, during, and after interactions with other cultures (metacognition). They have complex cognitive systems that contain knowledge about many civilizations and cultural differences (cognition) and they possess the ability to focus and maintain energy in a variety of cultural contexts (motivation). Lastly, they adjust their behavior based on the needs of the situation (behavioral) **(Mahmoud, 2022).**Regarding voice behavior, we propose that employees with high cultural intelligence are more likely to speak up than employees with low cultural intelligence when confronted with voice targets that are culturally distinct **(Yuan et al., 2023)**.

According to culturally differences, the individuals with high cultural intelligence have; 1) a feeling of self-efficacy in relating to individuals from various cultures, and consequently, a perception of a genetic control that allow to communicate with others (motivational cultural intelligence); 2) possess complex cultural communication schemas that cover the differences between low- and high-context communication, reducing their ambiguity about appropriate methods to speak up (cognitive cultural intelligence); 3) have self-regulation techniques that enable individuals to detect clues and modify their perception of whether their voice is suitable and effective (meta-cognitive cultural intelligence); and 4) possess a variety of adaptable verbal and nonverbal communication skills to effectively convey their ideas in many cultural contexts (behavioral cultural intelligence) **(Wawroz & Jurasek, 2021)**.

Moreover, research highlights the ability of culturally intelligent nurses to apply information and cognitive approaches and acquire a set of competencies that are currently most critical in global inclusive leadership **(Becker, 2021)**. Cultural intelligence is a key enabler of inclusive leadership as well as a critical competency for global management and multinational leadership **(Paiuc, 2021)**.

Significance of the Study:

Despite being aware of the necessity of voice behavior, public hospital nurses do not always disclose deeply. For the good of humanity, this problem needs to be regularly researched, and the best practices found, shared, and put into effect at hospitals that are serious about reducing unethical behavior and improving healthcare standards. No study seems to examine the relationship among cultural intelligence (CQ), inclusive leadership, and voice behavior, however there are limited studies that investigate the relationship between voice behavior and inclusive leadership **(Jiang et al., 2023)**, and a few examined the relationship between voice behavior and cultural intelligence **(Yuan et al., 2023)**.Because of the importance of nurses' voice behavior, prior studies have attention related this study. The current study will extend our understanding of the antecedent of employee's voice behavior by examining the role of cultural intelligence and inclusive leadership as approach to nurses' voice behavior.

Aim of the study

So, the purpose of the current research was to examine nurses 'perspective of inclusive leadership and cultural intelligence as an approach for fostering their voice behavior.

Research Questions:

1. What is inclusive leadership level from staff nurses' perspective?
2. What is cultural intelligence level from staff nurses' perspective?
3. What is voice behavior level from staff nurses' perspective?
4. What is a relation between inclusive leadership and nurses' voice behavior?
5. What is a relation between cultural intelligence and nurses' voice behavior?

Subjects and Method

Research Design:

A descriptive correlational research design was utilized in the conduction of this study.

Setting:

This study was conducted at Shebin El-Kom Teaching Hospital, Menoufia governorate, in the different general and critical care units (Neurology, Cardiology, Emergency, Urology, Obstetrics and gynecology, ENT, Chest, Orthopedics, Oncology, Pediatric, and Medical-Surgical departments, and Intensive Care Units).

Subjects:

Sampling technique:

A simple random sampling of 428 staff nurses who had at least two years of experience working in the previous hospital and accepted to participate in the study.

Sample size:

In order to calculate the sample size required to examine nurses 'perspective of inclusive leadership and culture intelligence as an approach for fostering their voice behavior in general critical care units, **Epi website** was used**,** with the following sample size equation, **Betty et al., (2006)**.

Sample size equation:

Sample size **n = [DEFF*Np(1-p)]/ [(d2/Z21-α/2*(N-1) +p*(1-p)]. Where:**

N = Population size, **n =** Sample size, DEFF = Design effect, **P =** % frequency of voice behavior among staff nurses working in critical care units= 50 % (from a pilot study).

d = Confidence limits as % of 100 (absolute +/- %) (d) = 5%. **Z**= 1.96, **α** = 0.05

The assumptions were:

Population size (for finite population correction factor or fpc) (N) =	2500
Hypothesized % frequency of voice behavior among staff nurses working in critical care units (p)	=50%+/-5%
Confidence limits as % of 100 (absolute +/- %) (d) =	5%
Design effect (for cluster surveys - DEFF) =	1

We used 95% confidence intervals, with a sample size of 428 staff nurses as this study sample size. Four hundred and twenty -eight (428) staff nurses were recruited by using a simple random sampling technique.

Tools:

Tool one: Inclusive Leadership Questionnaire

It was developed by Carmeli et al., (2010) to assess inclusive leadership level from staff nurses' perspective. The instrument contained two main parts:

- **Part 1:** Included personal data of study sample (age, gender, marital status, residence, education, and years of experience and work units).
- **Part 2:** It included three sub dimensions: Openness (4 items), availability (4 items), and accessibility (2 items).

Scoring system:

This instrument included (10) descriptive items ranked in a five-point Likert Scale that ranged from '1' (never) to '5' (always). This scale measured staff nurses' response to their supervisor's inclusive leadership style/ approach in their organization and estimated the degree to which staff nurses see their

chief's worker administration style/approach. Total score (10 – 50).

Tool Two: Cultural Intelligence Scale

CQ was measured using the Cultural Intelligence Scale developed by Ang et al. (2007) to assess cultural intelligence level from staff nurses' perspective. This scale contains twenty items that assess cultural intelligence in terms of metacognitive (four items; e.g. 'I check the accuracy of my cultural knowledge" as "I interact with people from different cultures'), cognitive (six items; e.g. 'I know the cultural values and religious beliefs of other cultures'), motivational (five items; e.g. 'I am sure I can deal with the stresses of adjusting to a culture that is new to me'), and behavioral dimensions (five items; e.g. 'I use pause and silence differently to suit different cross-cultural situations').

Scoring system:

Staff nurses ' responses were measured in five-point Likert Scale that takes values between 1 (strongly disagree) and 5 (strongly agree). Levels of cultural intelligence represented statistically based on the cut of value into ≥75% = scores from (75-100) as high level; 60% - <75% = scores from (60- <75) as moderate level and <60% = scores from (20- <60) denotes low level.

Tool three: Voice Behavior Scale

This Instrument was developed by Liang et al., (2012) to assess voice behavior level from staff nurses 'perspective. This instrument included (10) descriptive items.

Scoring system:

These descriptive items ranked in a five-point Likert Scale that ranged from '1' (never) to '5' (always). It included two sub dimensions: Promotive (5 items), and Prohibitive (5 items). Total score (10 – 50). Levels of voice behavior represented statistically based on the cut of value into ≥75% = scores from (38-50) as high level; 60% - <75%=scores from (30- < 38) as moderate level; <60% = scores from (10- < 30) as low level.

Validity of tools:

Validity of the first, second, and third instruments, as well as their Arabic translated versions, were done by panels of three expertise in the field of Nursing Administration, Faculty of Nursing, Menoufia University, who interviewed the three instruments, with their Arabic translated versions, for content accuracy and internal validity. Also, professors were asked to judge the items for completeness and clarity (content validity). Suggestions were incorporated into the three instruments, and their Arabic translated versions.

Reliability of tools:

Reliability of **Inclusive Leadership** instrument using Alfa Coefficient test (Cronbach's alpha) was 0.87. Reliability of **Cultural Intelligence** instrument was measured by using Cronbach's alpha and the value was α=0.79. Also, Cronbach alpha reliability test for instrument three (**Voice Behavior Scale**) was 0.81 which indicate that the three instruments are reliable to detect the objectives of the study.

Field of work

Official consent was granted by the Nursing College Dean. Ensuring voluntary participation protected the respondent's rights, so that, written consents were obtained after explaining the purpose, time of conducting the study, the potential benefits of the study, nature, and how data was collected. Respondents guaranteed that all information was handled with complete secrecy. Additionally, as the respondents were not compelled to provide their identity, their anonymity was preserved.

Ethical Consideration

An approval was obtained from Ethical and Research Committee of Nursing College,

Menoufia University with decision No. (905) –2023 and Shebin El-Kom Teaching Hospital Administration approved at 18-2- 2023. Also, a written consent was obtained from the studied staff nurses.

The pilot study:

The pilot study was carried out on 10 % of the study sample (43 staff nurses) to evaluate study instruments in terms of its clarity, applicability and time required to fulfill all the study instruments and also to explore its feasibility. The accuracy modification and exclusion were done.

Data Collection procedure

Preparatory phase:

It was necessary to translate the instruments into Arabic. The initial step was translating the English questionnaire items into Arabic. Second, English translations of the Arabic questionnaire items were made. Finally, the original English surveys and the back-translated questionnaires were presented to an English language specialist for comparison in order to look for any differences. Next, questionnaires were used to verify its validity.

Implementation phase (data collection):

A coding sheet was created prior to the gathering of data. Next, by selecting a number at random from the pool, the researcher gave each participant a code number. Data were collected in the morning, afternoon and night shifts and questionnaire sheets filled by staff nurses in the presence of the researchers to ascertain all questions were answered. The time required for each nurse to fill the questionnaire was estimated to be 20-25 minutes. Data were collected upon 2 months started from 20th of February 2023 to 20th of April 2023.

Data Analysis

Data was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 22. Data was coded and transformed into specially designed form to be suitable for computer entry process. Graphics were done using Excel program. Quantitative data were presented by mean and standard deviation (SD). Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ($\chi 2$) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Level of significance was set as P value <0.05 for all significant tests.

Results

Table (1) represents personal characteristics of the studied staff nurses. The highest percent of them (40%) were between (30 – 39) years old and most of them (82.9%) were female nurses. Also, more than one third of the studied subjects (52.6%) were technical institute nurses and (59.8%) had more than 10 years of experience. Regarding marital status, the most of the staff nurses (87.1%) were married and more than half of the studied staff nurses (58.9%) were working at general units.

Table (2) clarified the mean score of inclusive leadership dimensions and their ranking from studied staff nurses' perspective. It presented that the total mean score of inclusive leadership was 31.54± 8.80. The first ranking inclusive leadership dimensions with the highest mean score was "Openness" (12.72±3.51), which was followed by (12.61±3.52) related to "Availability", and the lowest mean was (6.25 ± 1.76) which related to "Accessibility" dimension.

Table (3) demonstrated the mean score of cultural intelligence dimensions and their ranking from studied staff nurses' perspective. It presented that the total mean score of cultural intelligence was 64.24±16.24. The

first ranking CQ dimensions with the highest mean score was cognitive cultural intelligence" (19.44± 4.69), which was followed by (16.11± 4.00) related to behavioral CQ, and the lowest mean was (12.61± 3.52) which related to metacognitive CQ dimension.

Table (4) demonstrated the mean score of voice behavioral dimensions and their ranking from studied staff nurses' perspective. It presented that the total mean score of Voice Behavioral was 30.93±8.57. The first ranking voice behavioral dimensions with the highest mean score was promotive (15.77± 4.41), which was followed by the lowest mean (15.17± 4.21) related to prohibitive.

Table (5) highlighted Pearson correlation between total score of inclusive leadership, cultural intelligence, and voice behavior among studied nurses. Among studied nurses, there was a high positive significant correlation between total inclusive leadership and culture intelligence ($r=0.991$, $p<0.0001$). In addition, similar correlation was observed between total inclusive leadership and total voice behavior score ($r=0.995$, $p<0.0001$). Furthermore, the table highlighted a high positive significant correlation between total culture intelligent and total voice behavior ($r=0.982$, $p<0.0001$).

Figure (1) the levels of total inclusive leadership from studied staff nurses' perspectives. The highest percentage of inclusive leadership levels was moderate (39.7).

Figure (2) the levels of total cultural intelligence dimensions from studied nurses' perspectives. The highest percentages of cultural intelligence levels were moderate (39.5).

Figure (3) the levels of total voice behavioral dimensions from studied nurses' perspectives. The highest percentage of voice behavior levels was moderate (40.9).

Table 1: Personal characteristics of studied staff nurses (N=428)

Personal Characteristics		No	%
Age groups:	20 – 29 years	73	17.1
	30 – 39 years	171	40
	40 – 50 years	118	27.6
	> 50 years	66	15.3
Mean± SD 37.6 ± 2.8 years			
Gender:	Male	73	17.1
	Female	355	82.9
Residence:	Urban	74	17.3
	Rural	354	82.7
Marital status:	Single	29	6.8
	Married	273	87.1
	Divorced	11	2.6
	Widow	15	3.5
Education:	Diploma	126	29.4
	Technical institute	225	52.6
	Bachelor	71	16.6
	Post-graduate	6	1.4
Experience:	1 – 5 years	61	14.3
	6 – 10 Y	111	25.9
	> 10 Y	256	59.8
Mean± SD 17.3 ± 2.5 years			
Studied unites:			
Critical units		176	41.1
General units		252	58.9

Table 2: Mean score of inclusive leadership dimensions and their ranking from staff nurses' perspective (N=428)

Inclusive Leadership Dimensions	No. of items	Minimum	Maximum	Mean± SD	Mean%	Ranking
Openness	4	4	20	12.72±3.51	63.6%	1
Availability	4	4	20	12.61±3.52	63.1%	2
Accessibility	2	2	10	6.25 ± 1.76	62.5%	3
Total Inclusive Leadership	10	10	50	31.54± 8.80		

Table 3: Mean score of cultural intelligent dimensions and their ranking from staff nurses' perspective (N=428)

Cultural Intelligent dimensions	No. of items	Minimum	Maximum	Mean± SD	Mean %	Ranking
Metacognitive	4	4	20	12.61± 3.52	63.05%	4
Cognitive	6	6	30	19.44± 4.69	64.80%	1
Motivational	5	5	25	16.07 ±4.12	64.28%	3
Behavioral	5	5	25	16.11± 4.00	64.44%	2
Total Cultural Intelligent	20	20	100	64.24±16.24		

Table 4: Mean score of voice behavioral dimensions and their ranking from staff nurses' perspective (N=428)

Voice Behavioral dimensions	No. of items	Minimum	Maximum	Mean± SD	Mean %	Ranking
Promotive	5	5	25	15.77± 4.41	63.0٨%	1
Prohibitive	5	5	25	15.17± 4.21	6٠.٦٨%	2
Total Voice Behavioral scale	10	10	50	30.93±8.57		

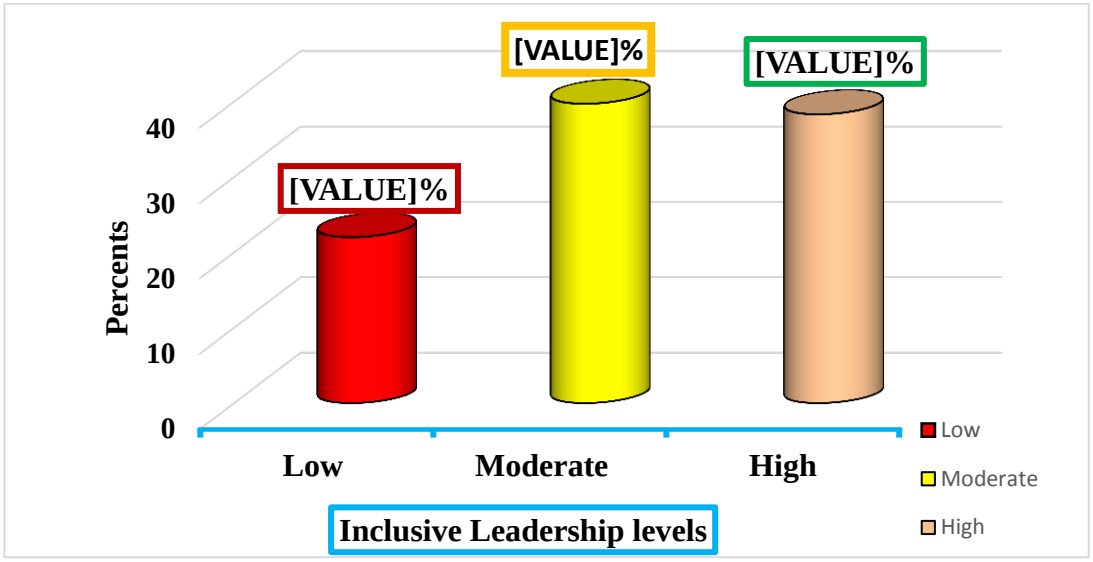

Fig.1: The levels of total inclusive leadership from studied staff nurses' perspectives (N=428)

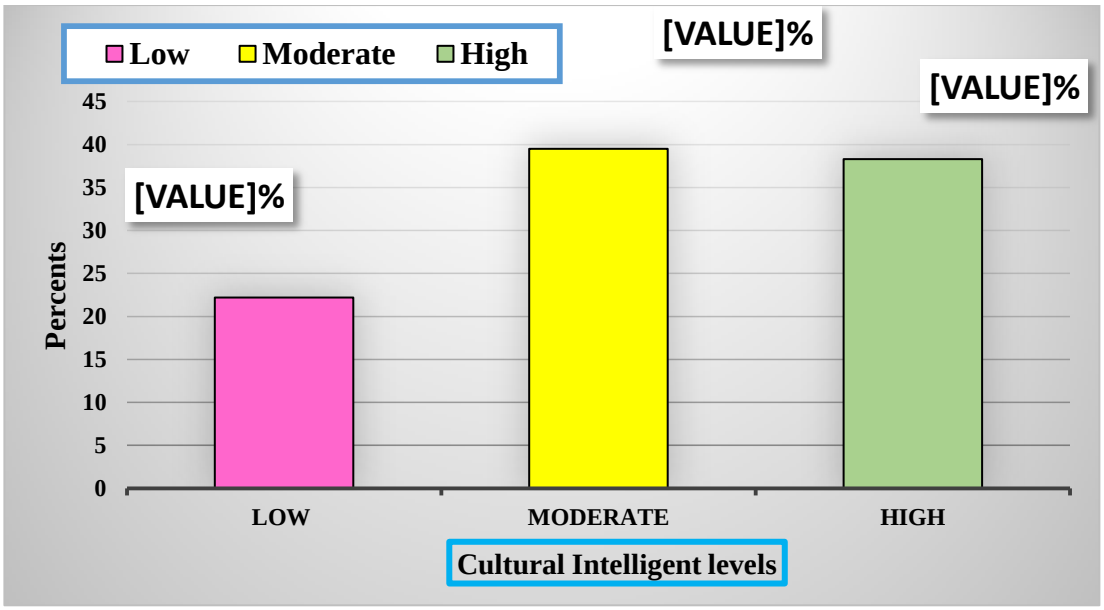

Fig.2: The levels of total cultural intelligence from studied staff nurses' perspectives (N=428)

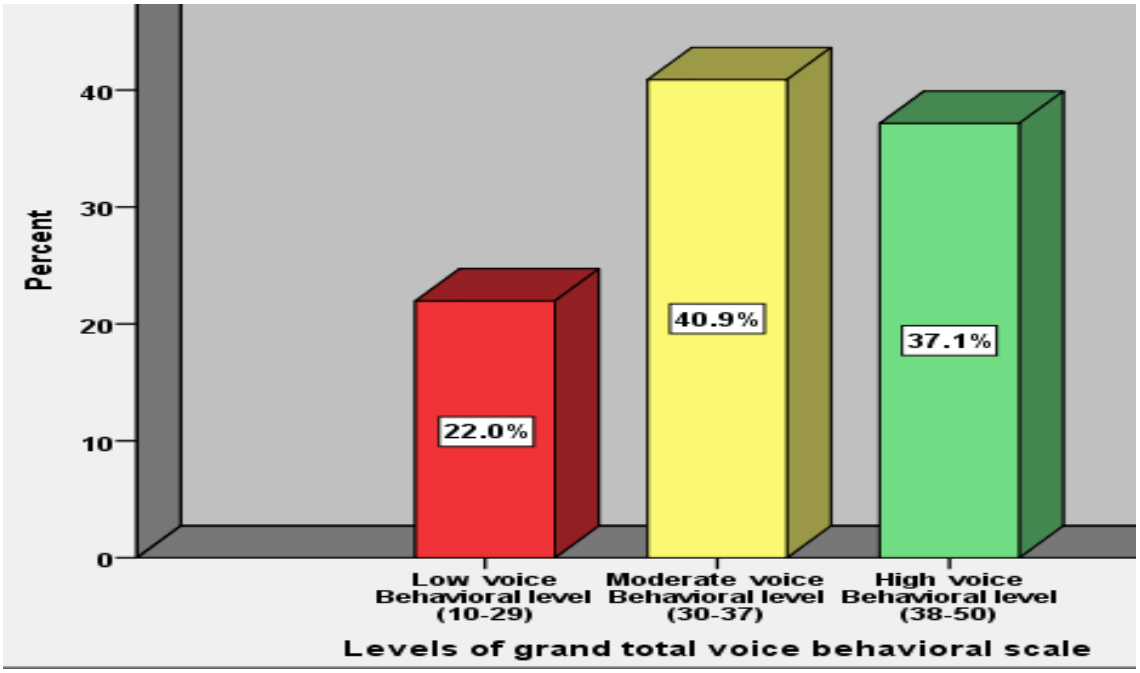

Fig.3: The levels of total voice behavioral from studied staff nurses' perspectives (N=428)

Table 5: Pearson correlation between total score of inclusive leadership, cultural intelligent, and voice behavioral among studied nurses (N=428)

Variables	Total Inclusive Leadership		Total Culture Intelligence		Total Voice behavior	
	r	p	r	p	R	p
Total Inclusive Leadership	1	-				
Total Culture Intelligence	0.991**	<0.0001	1	-		
Total Voice behavior	0.995**	<0.0001	0.982**	<0.0001	1	-

Discussion

The importance for cultural intelligence in medical care is highlighted by the growing in cultural variety (**Başli et al., 2018)**. People's cultural beliefs have a significant impact on their conceptions of health and illness. A relatively new field of intelligence called cultural intelligence is one of the most useful instruments for carrying out activities effectively in settings with a diverse workforce, such as the healthcare industry. According to research, there is a clear correlation between cultural intelligence and leadership, teamwork, the workplace environment, individual traits, job resources and demands, as well as individual attitudes and values. Of all these measures of cultural intelligence, voice behavior among nurses is significantly influenced by leadership (**Afsar et al., 2020)**. As well as inclusive leaders show their availability to their subordinates and involve them in decision-making and job activities, they foster their cultural intelligence **(Sharma et al., 2023)**. Nurses' voice behavior contributes to the identification of issues inside healthcare facilities, improves patients' nursing experiences, and boosts staff members' job satisfaction **(Atalla et al., 2022)**. Therefore, it is crucial more than even for nurses to speak up and be heard.

Regarding total inclusive leadership from studied staff nurses' perspectives the results of current study revealed that the level of inclusive leadership was moderate. This may due to leaders empower nurses to make the most of their skills, supports them in developing personally, and motivates them to solve problems rather than merely providing the solution. These findings were supported by (**Afsar et al., (2020)** study which suggested that inclusive leaders value nurses and motivate them to accomplish difficult and demanding objectives. recognize and assess their efforts and accomplishments toward achieving those specific objectives, and exhibit reactive behavior where leaders address staff issues promptly and clearly. Furthermore, inclusive leaders gave nurses a great deal of autonomy to carry out their jobs as they saw fit. They valued having nurses present at the workplace (**Laurie et al., 2021)**. The current study showed that culture intelligence level was moderate that may be due to that hospital healthcare personnel are increasingly adept at and interested in engaging with people from diverse cultural backgrounds. Good leaders-nurse communication results in improved health care and the opportunity to experience different cultures. These results could encourage more professional competence and efficient communication. The result was in the same line with **(Baratipou et al., (2021)** study which found that the level of culture intelligence was moderate. Also, this result was consistent with **(Bakhtiari et al., (2023)** study findings showed that students' cultural intelligence was at average level. However, contrary to the present study, **(Rahimaghaee and Mozdbar, (2017**) in their study about culture intelligence and professional competency culture intelligence were high.

The findings of the current study showed that staff nurses had moderate levels of voice behaviors it could be because nurses had low levels of stress, burnout, and organizational commitment in addition to

job satisfaction. This outcome might also be connected to hospital administrators encouraging nurses to speak up and giving them opportunities to offer recommendations for decision-making. The result of the current study was consistent with **(Li et al., (2020); Rubbab et al., (2020)**,who stated that nurses' voice behavior was moderate. On the other hand, the results of the current study inconsistent with (**Cao et al., (2019)** who revealed that wealthy people had high degrees of voice behavior.

Concerned to inclusive leadership dimensions the result of the current study revealed that the highest mean score was openness dimension and the lowest mean was related to accessibility dimension. This is because nurses have easy access to all learning materials and professional growth opportunities. The results of the current study were similar to a study by **(Rodriguez**, **(2018)**, reported that the highest mean and standard deviation was found in the openness dimension.

Cognitive cultural intelligent dimension of culture intelligence was reported with the highest mean score, while metacognitive culture intelligent dimension was reported with the lowest mean score by study sample in the current study. This may be related to the duty nursing leaders have to identify indicators of cognitive strain in their workforce and take proactive steps to lessen cognitive load and its effects. The findings of the current study were inconsistent to a study by (**Sousa et al., (2023)** reported that metacognitive culture intelligent subscale was reported with the highest mean score and cognitive cultural dimension indicate an average value.

Also, related to voice behavioral dimensions the results of the current study showed that promotive voice behavior dimension was reported with the highest mean score, while prohibitive voice behavior dimension was reported with the lowest mean score by study sample in the current study. This may attribute to the fact that nurses have poor organizational commitment and high degrees of psychological burnout from work-related stress. The results of the current study are consistent with **(Li et al., (2020); Rubbab et al., (2020)**, who stated that clinical promotive voice practices were mild to moderate. On the other hand, the results of the current study inconsistent with **(Atalla et al., (2022)** ,who stated that that staff nurses had prohibitive voice behavior more than promotive voice behavior.

Results of the current study revealed that there was a high positive significant correlation between total inclusive leadership and culture intelligence; this might be because working with staff members from other cultures requires displaying respect, sensitivity, poise, cooperation, honesty, acumen, curiosity, and tolerance. These components are associated with being inclusive leaders. This result was correspondent with (**Majda et al., (2021); P**aiuc, **(2021)** studies which suggested statistically positive relation between inclusive leadership and culture intelligence and study approved that cultural intelligence is a core competence of inclusive leadership. The study showed that cultural intelligence is a key enabler of inclusive leadership as

well as a major competency for global management and international leadership.

The current study revealed that there was a highly positive correlation between total culture intelligent and total voice behavior. This could be because nurses use their voices as interactive tools to demonstrate their cultural intelligence. Allowing nurses to participate actively in problem solving and allowing them to show this behavior at work. Thus, cultural intelligence promoted a welcoming atmosphere where employees felt well supported by their leaders. This result was correspondent with (**Bannay et al., (2020)** study which indicated that inclusive leadership behavior such as openness, accessibility, and availability motivated nurse's voice behavior. Also, (**Guo et al., (2021)**, who stated that inclusive leadership, mentoring, and coaching promote nurses' ability to speak up and enhance their voice behaviors. Contradictory with this, a study by **(Sprouse, (2021)** suggested no statistically positive association between inclusive leadership and nurses' voice behavior.

The current study demonstrated a high significant association between culture intelligence and voice behavior among studied nurses. This recommends that shifting cultural intelligence will result in shifting of nurses' voice behavior. This outcome might be explained by the fact that cultural intelligence fosters nurses' ability to grow both personally and professionally throughout time. Encourage nurses to mentor younger nurses as well, as this will help them to adopt more assertive habits. This result was consistent with **(Jiang et al., (2017)**, who found high significant association between culture intelligence and voice behavior in the study about cultural intelligence and voice behavior among migrant workers.

Conclusion

In the light of the current study, it was concluded that the highest percent of studied staff nurses reported that inclusive leadership, cultural intelligence and voice behavior were moderate levels. There was a high significant correlation between inclusive leadership and voice behavior among studied nurses at $p<0.0001$. Also, there was a high positive statistically significant correlation between total cultural intelligence and total voice behavior among studied nurses at $p<0.0001$. Also, there was a high significant correlation between inclusive leadership and voice behavior among studied nurses at $p<0.0001$.

Recommendations

Based on the findings of this study, the following recommendations are proposed: Training sessions were undertaken to enhance inclusive leadership, cultural intelligence and nurses' voice behavior through training of nurse managers and staff nurses on cognitive and behavioral skills. Health care organizations' nurse managers enhance inclusive leadership practices, also, nurse managers encourage nurses to take responsibility, listen to their feedback and affirm their work performance. These activities can contribute to the refinement of inclusive leadership style. Nurse Managers provide support to nurses including spiritual attention and material incentives so; nurses would reward the organization with more positive behaviors such as voice behavior.

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Conflict of Interest

The authors declare no conflict of interest.

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