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The Effect of Stress and Communication Barriers on The Resistance to Change Among Nurses in A Tertiary Hospital

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ABSTRACT

Background: Resistance to change among nurses in tertiary hospitals is influenced by multiple factors, including stress and communication barriers. Understanding these relationships is essential for improving change management strategies in healthcare settings. This study aimed to examine the impact of stress and communication barriers on nurses' resistance to change at a tertiary hospital. Specifically, it evaluates the prevalence of perceived stress and communication barriers and their association with resistance to change, while also considering demographic and job-related factors.

Methods: An analytical cross-sectional study was conducted at Madinah Cardiac Center in Saudi Arabia. A structured questionnaire was distributed to 216 nurses, assessing perceived stress, communication barriers, and resistance to change using validated scales. Data were analyzed using descriptive statistics, Pearson correlations, and multiple regression analysis.

Results: The findings indicated a significant positive correlation between perceived stress and resistance to change ($r = 0.403$, $p < 0.001$) as well as between communication barriers and resistance to change ($r = 0.467$, $p < 0.001$). Regression analysis revealed that communication barriers ($B = 4.375$, $p < 0.001$) had a stronger influence on resistance to change than perceived stress ($B = 0.693$, $p < 0.001$). Additionally, resistance to change varied based on gender, years of experience, work shift, and department.

Conclusions: Stress and communication barriers significantly contribute to nurses' resistance to change, with communication barriers playing a more substantial role. Addressing these factors through targeted interventions such as stress management programs, communication training, and leadership mentorship can enhance adaptability and improve patient care.

Keywords: *Resistance to change, stress, communication barriers, nurses, tertiary hospital, organizational change, healthcare management*

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1. INTRODUCTION

The healthcare system relies heavily on nursing, especially in high-level hospitals, where flexibility and change are crucial [1,2]. However, nursing staff resistance to change can stem from communication barriers and stress [3]. Stress can lead to apathy and resistance, as nurses may feel threatened by new practices or job security [3]. Communication barriers, such as language barriers, cultural differences, lack of training, and environmental factors, can make it difficult for nurses to adapt to changes [4]. High levels of stress can affect cognitive performance and emotional stability, while communication barriers can cause misunderstandings and feelings of isolation. Addressing stress and communication obstacles is crucial for

increasing nurse engagement in organizational changes. Healthcare administrators should prioritize developing supportive settings, regular training sessions, and promoting participation in change-related decision-making processes [5,6].

Stress is a common issue in the nursing profession, affecting nurses' mental health, job satisfaction, and overall well-being [7,8]. The prevalence of stress varies by country and healthcare specialty, with high levels reported in the United States (US), China, and Iran [7,8]. Nurses may experience anxiety and fear of incapacity, leading to resistance to change. Resistance is often motivated by negative emotions and individual personality traits [3,5]. Organizational culture plays a significant role in stress and resistance to change, as a supportive corporate environment can reduce stress by promoting open communication and providing necessary tools for dealing with change [9]. Positive coping mechanisms, such as seeking social support or problem-solving, can help nurses handle stress and resist change. Moreover, family support is also crucial for nurses' well-being [10]. Understanding the relationship between stress and resistance is crucial for successful change management in nursing settings.

Effective communication is also crucial for delivering high-quality healthcare and fostering positive relationships between nurses and patients [11]. However, individual attributes, organizational circumstances, and environmental conditions can all contribute to communication barriers. Nurse-related factors include workloads, emotional exhaustion, and lack of communication skills training [6,8,12]. Patient-related factors include anxiety, pain, and discomfort [13], while environmental factors like high-stress environments can impede communication [1,12]. Cultural differences, language problems, and unrealistic expectations can also contribute to communication barriers [14]. The link between communication barriers and resistance to change is complex, as nurses may feel ignorant or confused about changes and become resistant to change as a self-protection. To reduce communication barriers, healthcare organizations should prioritize effective communication techniques, hold frequent training sessions, and integrate nursing personnel in decision-making processes [11]. This inclusive approach builds trust and empowers nurses. By tackling both stressors and communication barriers, healthcare organizations can reduce resistance to change and improve overall job satisfaction among nursing staff, ultimately benefiting both nurses and patient care quality within tertiary hospitals.

There is a scarcity of studies in Saudi Arabia exploring the impact of stress and communication barriers on resistance to change among nurses. One study reported that a third of nurses in Saudi Arabia experience severe or very severe stress [15], and another study showed that cultural, religious, and linguistic differences hinder effective nurse-patient communication and lead to poor patient safety and low satisfaction [16]. To bridge this knowledge gap, it is imperative to conduct further studies to explore stress and communication barriers among nurses and their impact on resistance to change in the context of Saudi Arabia. This study aimed to examine the impact of stress and communication barriers on resistance to change among nurses at Madinah Cardiac Center in Saudi Arabia.

2. METHODS

Study Design

This research was an analytical cross-sectional study, and it was conducted within 4 months at Madinah Cardiac Center, Al-Madinah, Saudi Arabia. The analytical component involved statistical comparisons to identify significant relationships and potential predictors of resistance to change.

Study Setting

The study was conducted at the Madinah Cardiac Center in Al-Madinah, Saudi Arabia. The center provided specialized cardiovascular care and was staffed by a diverse team of healthcare professionals. According to the latest statistical data issued by Madinah Health Affairs on the Cardiac Center since its start in 1432H, consultation clinics have seen 80,449 outpatients, the cardiac cath has performed 23,607 procedures, and 1,853 inpatients have been served. Additionally, the clinic performed 1,425 major heart surgeries and 139 advanced procedures [17]. Due to the high-stress and complex nature of cardiac care, nurses at this center may be particularly susceptible to the effects of stress and communication barriers, making it an appropriate setting for examining these factors in relation to resistance to change.

Target Population

The target population included nurses employed at Madinah Cardiac Center in various roles within nursing, such as general nursing staff, specialized cardiac nurses, and intensive care nurses.

Eligibility Criteria

We included all nurses working at Madinah Cardiac Center, with a working experience of at least six months to ensure they are well-acquainted with the center's organizational structure, work culture, and any ongoing change initiatives.

We excluded nurses on leave and those on temporary contract as they may not experience the same level of organizational commitment or continuity in work conditions.

Sample Size Calculation

Using a confidence level of 95% commonly used, which corresponds to a Z-score of approximately 1.96, a margin of error (E) of 5% (0.05), and a proportion (P) of 50% (commonly used conservative estimate), the sample size was calculated using the following formula for estimating proportions:

$$N = \frac{Z^2 x P x (1-P)}{E^2} = \frac{3.8416 x 0.05 x 0.025}{0.0025} = 384.16 \approx \mathbf{385}$$

Therefore, the minimum sample size to achieve a 5% margin of error and 95% confidence interval was 385.

To adjust the sample size for a hospital with a population of 340 people, we used the finite population correction formula:

$$n_{adj} = \frac{n}{\left(1+\frac{n-1}{N}\right)} = \frac{385}{\left(1+\frac{384}{340}\right)} = 180.33 \approx \mathbf{181}$$

Where:

- n =385 (initial sample size)
- N=340 (finite population size)

So, the adjusted sample size for a hospital with 340 people is 181.

Sampling Technique

A convenience sampling strategy was used, in which all eligible nurses who wish to participate were recruited until the calculated sample size is met. Convenience sampling was suitable in healthcare settings where access to a specific group is limited. This strategy ensures that the study remains practical while collecting data from a representative group of nurses.

Data Collection Tool

A structured questionnaire was used and contains two parts:

(1) *Demographic Section:* This included age, gender, nationality, education level, years of experience, work shift (day/night), department, responsibility, and time spent at Madinah Cardiac Center.

(2) *Resistance to Scale Change:* This part included the Resistance to Change (RTC) Scale, stress and communication barriers. The RTC Scale consists of four dimensions: routine seeking, emotional reaction, short-term attention, and cognitive rigidity [18]. To assess resistance, each of these dimensons is scored on a Likert scale. To evaluate perceived stress, the Perceived Stress Scale (PSS) [19] was used, and communication barriers were assessed by items on language barriers, cultural differences, and workload-induced barriers adapted from a previous similar studies [6,8].

The questionnaire was pilot-tested with a small sample of nurses (about 10-15), and the feedback helped to improve item clarity, length, and simplicity of response. Previous research indicated the RTC scale's dimensions' Cronbach's alpha coefficients, as follows: routine seeking ($\alpha = 0.74$), emotional reaction ($\alpha = 0.75$), cognitive rigidity ($\alpha = 0.84$), and short-term focus ($\alpha = 0.74$), indicating reliability [20]. The Cronbach's alpha for the PSS is 0.754, with 0.82 and 0.87 for the negative and positive subscales, respectively [21]. Pearson's correlation coefficient for this tool was 0.82 [8].

Data Collection Process

Eligible nurses were approached in person and given a study information sheet describing the research goal, risks, and benefits. Participants provided written informed consent, confirming their voluntary participation and ability to withdraw at any time. Then, the questionnaire was distributed to the nurses in hard copy or electronic formats, increasing accessibility and response rate.

Data analysis

Data from the questionnaires were entered into a Microsoft Excel database and subsequently imported into IBM SPSS Statistics (Version 27, SPSS Inc., Chicago, IL, USA) for analysis. Data were double-checked for accuracy to minimize errors. All data were anonymized and securely stored, with access restricted to the approved research team. Data will be retained solely for analysis purposes in accordance with the hospital's data protection regulations and the institutional ethics committee's guidelines.

For the Resistance to Change (RTC) Scale, which comprises four subscales (Routine Seeking, Emotional Reaction, Short-Term Focus, and Cognitive Rigidity), with each subscale consists of three items, is rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Subscale scores were calculated by summing the responses to the three items within each subscale. The total RTC score was calculated by summing the scores across all 12 items. Higher scores indicate greater resistance to change. Perceived Stress Scale (PSS): The PSS consists of five items, each rated on a 5-point scale (0 = Never to 4 = Very Often). A total PSS score was calculated by summing the responses to all five items. Higher scores indicate greater perceived stress. Communication Barriers: This scale consists of five items, each rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). An overall communication barriers score was calculated by averaging

the responses to the five items. Higher scores indicate a greater perception of communication barriers.

Descriptive statistics (means, standard deviations, frequencies, and percentages) were used to summarize participant demographic characteristics and scale scores. Inferential statistical analyses were conducted to examine the relationships among perceived stress, communication barriers, and resistance to change. Pearson correlation coefficients were calculated to assess the bivariate relationships among the total RTC score, total PSS score, and overall communication barriers score. A multiple linear regression analysis was performed to determine the independent and combined effects of perceived stress and communication barriers on resistance to change (total RTC score), while controlling for potential confounding variables (age, gender, education level, years of experience, work shift, department, current role, and length of employment). The unstandardized regression coefficients (B), standard errors (SE), standardized coefficients (β), t-statistics, and p-values were reported. For group Comparisons, independent samples t-tests were used to compare mean RTC scores between groups with two levels, such as gender. One-way analysis of variance (ANOVA) was used to compare mean RTC scores across groups with three or more levels like age, years of experience, and department. For significant ANOVAs, Bonferroni post-hoc tests were conducted to identify specific group differences. A p-value of ≤ 0.05 was considered statistically significant for all analyses, while a p-value of ≤ 0.01 was considered highly statistically significant.

Ethical considerations

Ethical approval was sought from the Madinah Cardiac Center's institutional review board (IRB), and the study was initiated only after the approval was granted. Nurses got complete study information and were allowed to ask questions before consenting. All participant information was anonymized, and no identifiable data were used for reporting findings. Participants have the right to withdraw from the study at any moment without consequences, and to prevent social desirability bias, the responses were anonymized.

3. RESULTS

Demographic Information of the participants in the study

Table 1 presents the demographic characteristics of the 216 nurse participants. The sample was predominantly female (91.7%, N= 198), with the largest age group being 35-44 years old (44.9%, N= 97). Most participants held a Bachelor's degree (94.4%, N= 204) and had over 10 years of nursing experience (44.9%, N= 97). The majority worked rotating shifts (68.1%, N= 147), were employed as staff nurses (87.0%, N= 188), and had been working at Madinah Cardiac Center for more than 5 years (51.9%, N= 112). The ICU/CCU department had the highest representation (35.2%, N= 76).

Table 1. Frequencies and Percentages of Participant Demographic Characteristics

Characteristic	Frequencies	Percentage
Age		
Under 25	4	1.9%
25–34	90	41.7%
35–44	97	44.9%
45–54	25	11.6%
Gender		
Female	198	91.7%
Male	18	8.3%
Nationality		
Egyptian	10	4.6%
Filipino	102	47.2%
Indian	54	25.0%
Jordanian	9	4.2%
Pakistani	12	5.6%
Saudi	26	12.0%
Sudanese	2	0.9%

Yemeni	1	0.5%
Education Level		
Bachelor's	204	94.4%
Diploma	7	3.2%
Master's	5	2.3%
Years of Experience in Nursing		
1–5 years	49	22.7%
6–10 years	70	32.4%
More than 10 years	97	44.9%
Work Shift		
Day Shift	61	28.2%
Night Shift	8	3.7%
Rotating Shifts	147	68.1%
Department		
Cardiac Cath Lab	29	13.4%
ICU/CCU Department	76	35.2%
Emergency Department	19	8.8%
Surgical / OR Department	24	11.1%
Out-Patient Department	28	13.0%
In-Patient Department	30	13.9%
Other	10	4.6%
Current Role/Responsibility		
Staff Nurse	188	87.0%
Charge Nurse	14	6.5%
Head nurse	14	6.5%
Length of Employment at Madinah Cardiac Center:		
6 months to 1 year	16	7.4%
1–3 years	53	24.5%
3–5 years	35	16.2%
More than 5 years	112	51.9%

Scales of the Study

Table 2 shows descriptive statistics and resistance levels for the four subscales and the total score of the Resistance to Change (RTC) Scale. The mean total RTC score was 37.61 (SD = 7.89), indicating a moderate level of resistance to change among the participants. All four subscales also showed moderate levels of resistance: Routine Seeking (M = 10.20, SD = 2.36), Emotional Reaction (M = 9.49, SD = 2.64), Short-Term Focus (M = 10.01, SD = 1.98), and Cognitive Rigidity (M = 7.91, SD = 2.89).

Table 2. Descriptive Statistics and Resistance Levels for the Resistance to Change (RTC) Scale Subscales and Total Score

Subscales	No. of items	Min	Max	M	SD	Resistance level
Routine Seeking	3	3.0	15.0	10.20	2.36	Moderate
Emotional Reaction	3	3.0	15.0	9.49	2.64	Moderate
Short-term Focus	3	5.0	15.0	10.01	1.98	Moderate
Cognitive Rigidity	3	3.0	15.0	7.91	2.89	Moderate
Total RTC score	12	16.0	60.0	37.61	7.89	Moderate

Note. Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation. The total RTC possible score is 60. Resistance levels were categorized as follows: For subscales (3 items each): Low (3-7), Moderate (8-11), High (12-15). For Total RTC (12 items): Low (12-28), Moderate (29-44), High (45-60).

Moreover, Table 3 presents descriptive statistics for the individual items and the total score of the Perceived Stress Scale (PSS). The mean total PSS score was 9.13 (SD = 2.94), indicating a moderate level of perceived stress among the participants. The item with the highest mean score was "Felt nervous or 'stressed'" (M = 2.24, SD = 0.992).

Table 3. Descriptive Statistics for the Perceived Stress Scale (PSS) Items and Total Score

Items	N	Min	Max	M	SD
Unable to control important things	216	0.0	4.0	1.81	1.097
Confident about handling personal problems	216	0.0	4.0	1.48	1.011
Felt nervous or “stressed”	216	0.0	4.0	2.24	0.992
Things were going your way	214	0.0	4.0	1.75	0.818
Difficulties piling up	215	0.0	4.0	1.88	0.969
Total PSS score	216	0.0	18.0	9.13	2.94

Note. Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation. Total possible PSS score is 20. Stress Level for Total PSS Score: Moderate. Stress levels were categorized as: Low (0-7), Moderate (8-11), and High (12-20).

In addition, Table 4 shows descriptive statistics for individual communication barrier items and the overall mean score. The overall mean communication barriers score was 3.26 (SD = 0.658), indicating a moderate level of perceived communication barriers. The item with the highest mean was "Adequate training in communication skills" (M = 3.52, SD = 0.846), while the item with the lowest was related to "Misunderstandings due to limited time" (M = 3.02, SD = 1.000).

Table 4. Descriptive Statistics for Communication Barrier Items and Overall Mean Score

Items	N	Min	Max	M	SD
Language differences	216	1.0	5.0	3.46	0.904
Cultural differences	216	1.0	5.0	3.18	0.964
Workload prevents effective communication	216	1.0	5.0	3.12	1.014
Misunderstandings due to limited time	216	1.0	5.0	3.02	1.000
Adequate training in communication skills	216	1.0	5.0	3.52	0.846
Communication Barriers mean score	216	1.0	5.00	3.26	0.658

Note. Min = Minimum; Max = Maximum; M = Mean; SD = Standard Deviation. Interpretation of Communication Barriers Mean Score: Moderate. Levels were categorized as: Low (1.00 - 2.33), Moderate (2.34 - 3.67), and High (3.68 - 5.00).

Association between stress and communication barriers on the resistance to change

Table 5 and Figure 1 display the Pearson correlation coefficients among perceived stress (PSS), communication barriers, and total resistance to change (RTC) scores. Significant positive correlations were found between all variables. Perceived

stress was positively correlated with communication barriers ($r = 0.398$, $p < 0.001$) and total RTC score ($r = 0.403$, $p < 0.001$). Communication barriers were also positively correlated with total RTC score ($r = 0.467$, $p < 0.001$).

Table 5. Correlations Among Perceived Stress, Communication Barriers, and Resistance to Change

Variable	PSS	Communication Barriers	Total RTC Score
PSS	1.0		
Communication Barriers	0.398**	1.0	
Total RTC Score	0.403**	0.467**	1.0

*Note. PSS = Perceived Stress Scale; RTC = Resistance to Change. * Significant at p ≤ 0.01.*

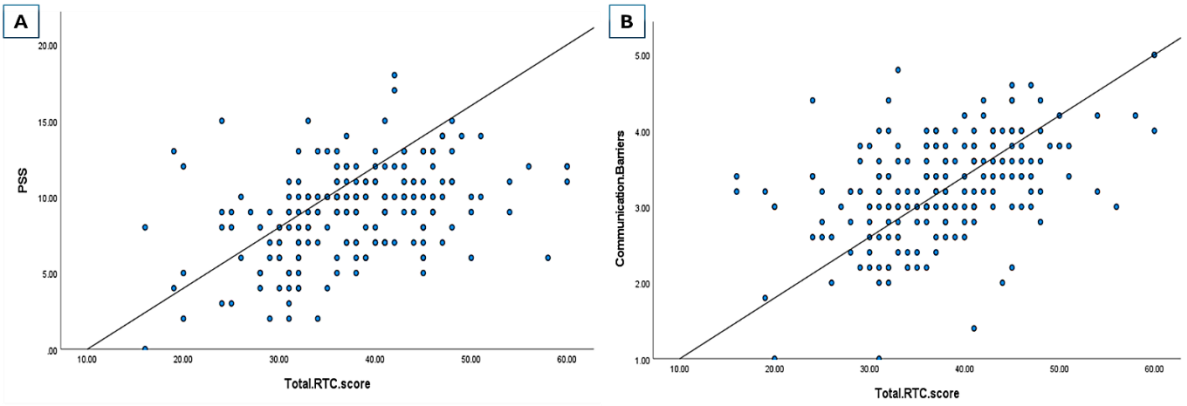

Figure 1. Scatter plot for the correlation between Resistance to Change and A, Perceived Stress, B, Communication Barriers

Table 6 presents the results of a multiple regression analysis predicting resistance to change (total RTC score) from perceived stress (PSS) and communication barriers. The overall model was statistically significant, $F(2, 213) = 40.27$, $p < 0.001$, and explained 27.4% of the variance in resistance to change ($R^2 = 0.274$). Both perceived stress ($B = 0.693$, $SE = 0.171$, $p < 0.001$) and communication barriers ($B = 4.375$, $SE = 0.763$, $p < 0.001$) were significant independent predictors of resistance to change. Communication barriers had a stronger standardized effect ($\beta = 0.365$) on resistance to change than did perceived stress ($\beta = 0.258$).

Table 6. Summary of Multiple Regression Analysis Predicting Resistance to Change from Perceived Stress and Communication Barriers

Predictors	B	SE B	β	t	P-value
Constant	17.0	2.39		7.092	<0.001**
PSS	0.693	0.171	0.258	4.052	<0.001**
Communication Barriers	4.375	0.763	0.365	5.733	<0.001**

*Note. PSS = Perceived Stress Scale; B = Unstandardized Regression Coefficient; SE B = Standard Error of B; β = Standardized Regression Coefficient; t = t-statistic; R = .524, R^2 = .274, Adjusted R^2 = .268, F(2, 213) = 40.27, ** Significant at p ≤ 0.01.*

Finally, Table 7 presents the mean resistance to change (RTC) scores across various demographic groups. A significant difference in mean RTC scores was found based on gender ($p = 0.042$); males ($M = 41.22$, $SD = 5.95$) exhibited significantly higher resistance to change than females ($M = 37.28$, $SD = 7.98$). Significant differences were also observed based on years of experience ($p = .014$), work shift ($p = 0.039$), department ($p = 0.022$), and current role ($p = 0.004$).

Post-hoc analyses using Bonferroni's correction revealed the following significant differences. First, regarding the years of Experience: Nurses with 1-5 years of experience ($M = 40.41$) had significantly higher RTC scores than those with more than 10 years of experience ($M = 36.41$). Second, Nurses working night shifts ($M = 40.75$) had significantly higher RTC scores than those working day shifts ($M = 35.56$). Third, nurses in the In-Patient Department ($M = 41.87$) had significantly

higher RTC scores than nurses in the Surgical/OR Department (M=35.08). Nurses in the In-patient department also had significantly higher RTC scores than those in the ICU/CCU department (M = 36.64). Lastly, concerning the current Role, Head Nurses (M = 30.86) had significantly lower RTC scores than both Staff Nurses (M = 38.12) and Charge Nurses (M = 37.43). In contrast, no significant differences were found based on age (p = 0.338), education level (p = 0.233), or length of employment (p = 0.058).

Table 7. Mean Resistance to Change Scores Across Demographic Groups

Characteristic	Mean	SD	P-value
Age [a]			
Under 25	42.25	5.68	
25–34	37.93	7.77	0.338
35–44	36.76	7.68	
45–54	38.96	9.22	
Gender [b]			
Female	37.28	7.98	0.042*
Male	41.22	5.95	
Education Level [a]			
Bachelor's	37.82	7.86	
Diploma	35.00	7.12	0.233
Master's	32.60	9.42	
Years of Experience in Nursing [a]			
1–5 years	40.41	8.78	0.014*
6–10 years	37.30	6.64	
More than 10 years	36.41	7.99	
Work Shift [a]			
Day Shift	35.56	8.51	
Night Shift	40.75	8.15	0.039*
Rotating Shifts	38.29	7.48	
Department [a]			
Cardiac Catheterization Lab	36.34	7.04	
ICU/CCU Department	36.64	7.87	
Emergency Department	38.68	9.11	0.022*
Surgical / OR Department	35.08	7.56	
Out-Patient Department	38.93	8.72	
In-Patient Department	41.87	6.37	
Other	36.10	6.71	
Current Role/Responsibility [a]			
Staff Nurse	38.12	7.73	0.004**
Charge Nurse	37.43	5.97	

Head nurse	30.86	8.98	
Length of Employment at Madinah Cardiac Center [a]			
6 months to 1 year	35.88	6.10	
1–3 years	39.98	8.67	0.058
3–5 years	38.00	8.16	
More than 5 years	36.61	7.47	

*Note. a, the P-value is calculated by a one-way ANOVA test. b, The P-value is calculated by an independent t-test. *Significant at $p \leq 0.05$.** Significant at $p \leq 0.01$.*

4. DISCUSSION

The study examined the impact of stress and communication barriers on nurses' resistance to change in a tertiary hospital setting. The findings demonstrated significant relationships between perceived stress, communication barriers, and resistance to change, aligning with existing literature while also highlighting new perspectives unique to the settings and Saudi Arabia in general.

The study found a significant positive relationship between perceived stress and resistance to change among nurses ($r = 0.403$, $p < .001$), supporting earlier research indicating that workplace stress impedes adaptability to organizational change [3,22]. Other studies emphasized that high workload and emotional strain contribute to increased stress, which in turn affects nurses' ability to engage in change initiatives [7,8]. Similar findings were also previously reported by Raza et al. (2023), who found that stress, particularly when linked to incivility and emotional exhaustion, exacerbates resistance to change in hospital settings [23]. The results align with Lorente et al. (2021), who highlighted that stress-driven emotional responses create a defensive posture toward new workplace policies. However, this study's findings suggest a stronger impact of stress in high-pressure environments, such as cardiac care settings, where precision and stability are prioritized over flexibility. Given the findings, the effect of stress on resistance to change may be moderated by institutional culture and departmental workload. For instance, nurses in high-stress units like the In-Patient Department reported significantly higher resistance scores than those in Surgical/OR Departments. Thus, future research should explore how departmental support mechanisms influence the stress-resistance dynamic.

The study established a significant relationship between communication barriers and resistance to change ($r = 0.467$, $p < .001$), confirming prior research that communication challenges can hinder change implementation [5,13]. Sharkiya (2023) found that clear and patient-centered communication is critical in fostering organizational adaptability. Similarly, Amoah et al. (2019) and Kwame & Petrucka (2020) identified language and cultural differences as primary barriers to effective communication, leading to resistance. One of the novel aspects of this study is its focus on training in communication skills, which scored the highest mean among communication barriers ($M = 3.52$, $SD = 0.846$). This suggests that inadequate training contributes to resistance, in contrast to previous research that focused primarily on language and cultural differences [16,24]. The structured communication training programs may mitigate resistance to change by addressing misunderstandings early in the transition process. Institutions that integrate regular feedback mechanisms and participatory decision-making may experience lower resistance. Modern performance management systems must incorporate employee feedback methods in order to promote engagement and a culture of continual development within businesses. Businesses can improve their decision-making procedures and develop more specialized strategies that meet workforce demands by aggressively seeking out and integrating employee viewpoints.

The study found significant gender differences in resistance to change ($p = 0.042$), with male nurses reporting higher resistance ($M = 41.22$) than female nurses ($M = 37.28$). This finding contrasts with previous studies that reported no significant gender differences [25]. One possible explanation is that male nurses, being a minority in some nursing contexts, may perceive change as an additional challenge to their professional adaptation. Moreover, resistance to change was inversely related to years of experience, with nurses having 1-5 years of experience scoring significantly higher ($M = 40.41$) than those with over 10 years ($M = 36.41$, $p = 0.014$). This aligns with Boada-Cuerva et al. (2018), who found that younger professionals exhibit higher resistance due to uncertainty and lack of familiarity with institutional culture. Additionally, another study reported that head nurses reported the lowest resistance scores ($M = 30.86$, $p = 0.004$), supporting the idea that leadership roles foster greater adaptability (Bridges, 2021).

The study's regression analysis revealed that communication barriers ($B = 4.375$, $p < 0.001$) had a stronger impact on resistance to change than perceived stress ($B = 0.693$, $p < 0.001$). This suggests that communication difficulties may amplify the effects of stress, creating a cyclical challenge in change adoption. This aligns with Smollan (2017), who emphasized that communication is a fundamental mediator between stress and change resistance. André et al. (2016) found

that high-stress environments reduce empathy and involvement in change, leading to a self-reinforcing cycle of resistance. Given these findings, healthcare administrators should prioritize transparent communication strategies to alleviate stress-related resistance.

Addressing stress-related challenges requires tailored interventions. Organizational stress management programs should be adapted to department-specific needs, as stress levels vary based on workload and patient demands. High-intensity units such as critical care or emergency departments may require additional mental health support and resilience training to mitigate stress-related resistance to change. Improving communication through structured training can also significantly reduce resistance to change. Targeted training programs focusing on effective communication strategies, particularly for nurses in high-resistance departments, can enhance clarity, reduce misunderstandings, and foster a more collaborative work environment. Regular workshops and scenario-based training can equip nurses with skills to navigate communication challenges effectively. Additionally, targeted leadership initiatives can play a crucial role in change management. Senior nurses and head nurses should actively engage in mentorship programs designed to support less experienced nurses in adapting to organizational transitions. Providing mentorship fosters confidence, enhances knowledge sharing, and creates a culture of openness to change, reducing overall resistance.

While this study provides valuable insights into the relationship between stress, communication barriers, and resistance to change among nurses, it has some limitations for consideration. First, the study was conducted in a single tertiary hospital, limiting the generalizability of the findings to other healthcare settings with different institutional structures and work cultures. Future research should consider multi-center studies to enhance external validity. Second, the use of self-reported surveys introduces potential biases such as social desirability bias and recall bias. Participants may have provided responses that they believed were more acceptable rather than those that accurately reflected their experiences. Implementing qualitative methods, such as in-depth interviews, could help validate and provide deeper insights into the findings. Third, the cross-sectional design of this study prevents the establishment of causality between stress, communication barriers, and resistance to change. Longitudinal studies would be beneficial in determining causal relationships and assessing how resistance to change evolves over time in response to interventions. Lastly, the study did not account for all potential confounding variables, such as individual coping mechanisms, personality traits, and institutional policies, which may influence nurses' resistance to change. Future research should incorporate these factors to provide a more comprehensive understanding of the issue.

5. CONCLUSION

This study examined the impact of stress and communication barriers on nurses' resistance to change in a tertiary hospital setting. The findings demonstrated significant positive relationships between perceived stress, communication barriers, and resistance to change, highlighting the need for targeted interventions to address these issues. The study found that communication barriers had a stronger impact on resistance to change than stress, suggesting that improving communication within healthcare organizations could be an effective strategy to mitigate resistance. Additionally, demographic and job-related factors such as gender, years of experience, and work shift influenced resistance levels, underscoring the importance of tailored interventions. The results emphasize the need for healthcare administrators to implement stress management programs, structured communication training, and leadership mentorship initiatives to facilitate a smoother transition during organizational changes. Future research should explore the longitudinal effects of these factors and consider multi-center studies to enhance generalizability. By addressing the challenges of stress and communication barriers, healthcare organizations can improve nurse engagement, job satisfaction, and overall patient care outcomes. Creating a supportive environment where nurses feel heard and involved in change processes is essential for successful healthcare transformation. This study contributes to the existing literature by reinforcing the link between stress, communication barriers, and resistance to change while identifying new moderating factors such as experience, gender, and departmental workload. By addressing these factors through targeted interventions, healthcare institutions can enhance adaptability, improve nurse satisfaction, and optimize patient care.

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