The Influence of Authentic Leadership on Perceived Readiness to Change Among Nurses in Healthcare Care Organizations: Hierarchical Regression

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KEYWORDS

Authentic leadership, perceived readiness to change, nurses.

ABSTRACT

B Background Healthcare systems are currently undergoing significant transformation as part of the evolving change process. Perceived nurse readiness for change is crucial in successfully implementing and sustaining change. Leaders play an important role in evaluating employees' readiness for change. However, limited studies link between authentic leadership and perceived nurses readiness for organizational change. Aim This study explores the relationship between authentic leadership and nurses' perceived readiness for organizational change within healthcare settings in Jordan after controlling sociodemographic variables. Methodology: This descriptive cross-sectional correlation study includes 140 registered nurses who work in healthcare settings. A self-administered questionnaire was used, including authentic leadership and perceived nurse readiness for change scales. Data analysis included descriptive statistics, a t-test, an ANOVA, a Pearson correlation coefficient, and hierarchical regression. Results strong positive relationship was found between Authentic leadership and perceived nurses' readiness for change ($r=0.65$, $p<.01$), and a negative significant moderate correlation was found between age ($r=-.29$, $p < 0.01$) total experiences in nursing ($r=-.35$, $p < 0.01$) and total experience in current floor/units ($r=-.31$, $p < 0.01$). Authentic leadership subscales found to correlate with perceived readiness to change; relational transparency and self-awareness have the highest strong positive correlations ($r=.64$, $p < .01$), ($r=.63$, $p < .01$) respectively . Hierarchical regression was conducted to control for sociodemographic variables, the result revealed that the overall model explained 50% of the variance for the perceived nurses readiness for change, with authentic leadership has the only significant predictor for this model after controlling sociodemographic variables ($t=8.02$, $p<.0001$). Conclusion The relationship between authentic leadership and perceived readiness for change is crucial to facilitating the success of organizational change. The result underscores the unique contribution of authentic leadership in improving perceived readiness for change. The authentic leader fosters trust and enhances communication, which empowers the employees to embrace the change process.

1. Introduction

Globally, the healthcare system is undergoing a significant and ongoing change process (Kotter, 2012; Mohta et al., 2023). Healthcare organizations worldwide should be able to adapt to evolving circumstances effectively, including technological advancements, financial constraints, and patient care. Effective change adaptation would improve the quality of hospital services and ultimately meet evolving patient needs (Burnes, 2019; Mohta et al., 2023; Mustain et al., 2008). Understanding the change process is critical to maintaining effective change adaptation. The initial phase of the change process involves cultivating organizational readiness. This phase is considered an essential precursor to successfully implementing the change process. Perceived individual readiness for change refers to the individual psychological and behavioral preparedness to implement the change. Moreover, Perceived readiness for change is a complex process and can appear at various levels, including individuals, teams, departments, and organizations (Nilsen et al., 2020). It was reported that Improving organizational readiness would effectively facilitate the implementation of change initiatives (Weiner, 2009).

Employees' readiness to change is among the paramount factors influencing the successful implementation of the change process (Gordijn, 2015). The leaders play a significant role in evaluating the employees' readiness for change. Failure to do so may result in the need to spend effort and resources dealing with resistance. This underscores the responsibility of leaders to assess the readiness of individuals as a paramount step before initiating organizational transformation (Balami, 2022)Thus, leaders play a pivotal role in assessing employees' readiness to change, which facilitates the drive toward successful change.

Furthermore, numerous studies found associations between nurse manager leadership style and employees' readiness to change (Al-Hussami et al., 2014; Andrews et al., 2012; Cummings et al., 2010). Similarly, another study showed that readiness for change is affected by leadership style, commitment, and subjective career success (Al-Hussami et al., 2018). Moreover, it was found that leadership behavior predicted the perceived readiness for change among employees (Al-Hussami et al., 2018; Nordin, 2011).

From different leadership styles, authentic leadership has emerged as a critical concept in contemporary organizational dynamics. However, limited studies have reported the association between authentic leadership and employees' readiness to change. Authentic leaders have high self-awareness, transparency, and good communication skills and adhere to moral and ethical principles when dealing with problems in practice (Northouse, 2018). Moreover, it was noted in business disciplines that authentic leaders foster readiness and commitment to change, which may encourage change compliance (Bakari et al., 2017). Authentic Leadership was found to affect the positive perception of the subordinates toward the change process, as it enhances their commitment and loyalty to implement the change process and promotes behavior that requires duty for commitment to change (Amunkete & Rothmann, 2015).

Furthermore, it was noted in other disciplines that an authentic leadership style would enhance the individual's readiness to change by building trust, fostering communication, and creating a supportive environment, ultimately improving organizational outcomes (Northouse, 2018)Thus, it is imperative to investigate how authentic leadership enhances readiness for change, thereby providing an understanding of its role in fostering the change process.

A range of studies examined the individual and organizational determinants of perceived change readiness among nurses. For instance, Amarneh (2017a) nurses who work in governmental hospitals perceived readiness as higher than those who work in private hospitals, especially in improving collaborative teamwork. In addition, another study found that female nurses perceived organization readiness as being more ready to implement a plan to use it in advanced nursing practices than male nurses (Amarneh, 2017a). Similarly, another study found that Jordanian nurses who worked in public hospitals were more ready to change, particularly in collaborating with teams for patient care than nurses who worked in private hospitals (Mrayyan, 2020).

Furthermore, Al-Hussami et al. (2018) Found that organizational factors such as leadership style, organizational commitment, and subjective career success influenced the perceived readiness for change. Moreover, it was found that perceived readiness to change is a crucial factor that employees who are ready for change tend to exhibit behavior congruent with organizational goals and ultimately foster engagement in the change process (Asbari et al., 2021).Therefore, addressing factors that contribute to nurses' perceived readiness to change is critical to improving nursing services and facilitating a change process that promotes the health of every individual, family, and community.

In contrast, resistance to change is considered a significant challenge (Tyler et al., 2014). Relatively limited literature addresses the factors contributing to resistance to change (Amarantou et al., 2018). Moreover, resistance to change refers to a behavior intended to impede or halt change, such as these factors: mistrust, fear, and communication barriers trigger resistance. These factors influence the quality and sustainability of the change. (DuBose & Mayo, 2020).

The health care system faces several challenges in the Jordanian context, including a lack of training in management planning, monitoring, and evaluation systems for change processes across different sectors. These obstacles impede the change process and the successful implementation within healthcare organizations (MOH,2023).

Limited literature in Jordan explores the perceived readiness of nurses to change (Alhusami, 2018; Amarneh,2017; Marayyan,2020). The previous studies explored transformational and transactional leadership styles that influence the perceived nurses' readiness to change (Al-Hussami et al., 2018; Amarneh, 2017a; Mrayyan, 2020)To the researcher's knowledge, none of the studies reported the relationship between authentic leadership and perceived nurses' readiness to change after controlling socio-demographic variables. There is still a gap in understanding this relationship. Thus, the present study aims to address this gap by exploring the influence of Authentic leadership style on perceived nurses' readiness for organizational change within healthcare organizations in Jordan after controlling sociodemographic variables.

Significant

The findings from the current study can be applied in nursing practice, management, and research. Nurse leaders are critical in empowering and preparing employees for organizational change. Their role is to enable nurses to achieve and attain the competencies that are necessary to prepare them for organizational change (Al-Hussami et al., 2018). The leader’s role is to prepare the employees and take responsibility for monitoring and maintaining the change process. Furthermore, the current study would highlight the crucial role of nursing leaders in driving and facilitating change.

Moreover, the current study provides a guide for nurse leaders to encourage preparedness for change within their organizations. It was noted that authentic nurse leaders are known for their transparency and proficient communication skills. These skills play a crucial role in fostering a positive organizational culture and facilitating the change process (Northouse, 2018). Additionally, authentic nurse leaders need to establish trust within the team, as this is vital for promoting collaboration and enhancing overall preparedness among nurses in the organization, thereby improving the successful execution of change initiatives.

This study is significant for future research as it aims to improve perceived nurses' readiness for change across healthcare institutions. The findings are crucial for understanding readiness for change and the various factors involved, with a specific focus on the potential role of authentic leadership as a predictor in this relationship. This would help fill the gaps in existing nursing literature and offer a new perspective on improving nurses' readiness for change.

Research purpose

To explore the influence of Authentic leadership style on perceived nurses' readiness for organizational change within healthcare organizations in Jordan after controlling sociodemographic variables.

Research questions

1. What are the levels of authentic leadership and the perceived nurses' readiness for change among nurses in healthcare settings?

2. What are the relationships between socio-demographic variables, perceived nurses' readiness for organizational change, and authentic leadership among nurses in healthcare settings?

3. Based on the selected socio-demographic variables, Are there any differences in perceived nurses' readiness for organizational change and Authentic leadership among Jordanian nurses?

4. Could authentic leadership predict the perceived readiness for organizational change after controlling the sociodemographic variables?

2. Methodology

Study Design

Descriptive, cross-sectional, correlational design to investigate the relationship between authentic leadership and perceived nurses' readiness to change at health care organizations in Jordan. The purpose of descriptive correlational research is to describe the relationship among variables. Data will be collected using a self-administered questionnaire.

Study Site and Settings

This study was conducted in Jordan, encompassing hospitals located in the country's capital (Amman). It includes two elected hospitals from the private and university-affiliated sectors. Convenience sampling was used to select the participants within these hospitals.

The elected hospitals were recruited from Amman city. The rationale for focusing on the capital city lies in the fact that most hospitals and nurses are concentrated in this region, reflecting a centralization of healthcare resources in the middle country. The selected hospitals offer comprehensive secondary and tertiary care services to patients across various age groups. They are equipped with multi-specialty care units, including critical care units and general wards.

Population

The target population for the current research were all registered nurses responsible for overseeing the delivery of patient care in their assigned unit/floor and those who work at Jordanian hospitals and have at least one year of experience as registered nurses. The accessible population for the current study were registered nurses who work in the selected hospitals. They were selected using convenience sampling. The inclusion criteria for participants included being a full-time registered nurse with at least one year of experience as a registered nurse in the same department to confirm familiarity with their manager and setting. The exclusion criteria for participants included registered nurses who would not directly provide care for the patients, such as nurse managers and directors of nurses.

Sample and Sampling

The study sample frame consisted of all registered nurses in the selected hospitals in Jordan who meet the inclusion criteria. Due to practical considerations for participant accessibility, participants were selected using convenience sampling. Convenience sampling is non-probability sampling, which remains the most applicable method in clinical research. In this approach, the researcher enrolled the participants according to availability and accessibility.

Sample Size Calculation

To determine the required sample size for this study, the research assumed a relative power of 0.95 to reflect adequate precision. As the power of a study increases, the probability of making a Type II error decreases. The significance level of this study was set at 0.05. A significance level of .05 is common in nursing research and indicates a confidence level of .95 (Polit & Beck, 2020). The effect size expresses the strength of relationships among research variables; a small effect size of 0.15 was used for this study. The number of predictors is 10. The estimation was based on the "linear multiple regression: fixed model, R^2 deviation from zero" through specific software G*Power 3.1.9.2 for Windows. The estimated sample size was 172 participants. A larger sample of 190 registered nurses from selected hospitals was recruited to account for incomplete questionnaires and missing data Polit and Beck (2020). About 190 questionnaires were distributed to registered nurses in the selected hospitals.

Instrumentations and Psychometric Properties

In this research study, data were collected using a self-report questionnaire to explore the relationship between authentic leadership and perceived nurses' readiness to change for healthcare organizations in Jordan. The questionnaire contains a sample characteristic sheet, the Authentic Leadership Questionnaire, and the Perceived Nurses' Readiness for Change questionnaire.

Sample characteristics sheet

The demographic questionnaire included items selected from the literature review that were found to be related to the variables of interest. The items were grouped according to three subsections: personal information, which includes gender (male and female), marital status (single, married, or divorced/widowed), age, educational background (baccalaureate, and master's degree or higher), hospital type (privet, education-affiliated hospital), total experience in nursing and total experience in current unit/ floor, and type of current workplace is as follows (critical units, floors, or emergency) and salary.

Authentic Leadership was measured using the Authentic Leadership Questionnaire (ALQ) developed by (Avolio & Bass, 2004). This instrument measured nurses' perceptions of their managers' authentic leadership. It includes sixteen (16) items divided into four (4) subscales: relational transparency, internalized moral perspective, balanced information processing, and self-awareness. These items were rated on a Likert scale ranging from 0 (not at all) to 4 (frequently, if not always). The total mean score is obtained by adding scores and dividing by the number of items, so the higher mean score indicates proficiency in authentic leadership. This scale used in nursing literature has evidence of excellent reliability with internal consistency values that range from 0.70 to 0.96 (Dirik & Seren Intepeler, 2024; Wong et al., 2020; Wong et al., 2013; Zhang et al., 2023) and has adequate validity (Wong et al., 2020; Wong et al., 2013). The Cronbach alpha for subscales (self-awareness, relation transparency, internalized moral, and balanced information processing were reported as (0.93,0.90,0.86, and 0.79). In the current study, the Cronbach alpha for this scale was .96; this indicates that the scale has high reliability, and the Cronbach alpha for subscales was (0.93, 0.90, 0.86, and 0.79). The content validity index for the total scale in the current study was .91, which indicates high-scale validity.

The perceived nurse's organization readiness for change was measured by a 10-item individual readiness for change questionnaire developed by (Hanpachern et al., 1998). The scale items were adapted based on the work of (McNabb & Šepič, 1995), with further modifications by (Al-Hussami et al., 2018) That rated the response on a 7-point Likert scale (1=strongly disagree to 7=strongly agree). The total score will be calculated by computing the mean score; a higher score indicates higher readiness for change. This scale has good previous reliability with a Cronbach alpha of .82, indicating good internal consistency. (Al-Hussami et al., 2018)In the current study, the scale reliability was .91, which indicates high reliability. The content validity index for this scale was .90, which indicates high validity.

Pilot Testing of Research Instruments

Arabic versions of the instruments were administered to the study sample. Only the Perceived readiness for

change was translated to Arabic, using a translation and back translation process. A panel of seven experts reviews the items according to criteria of clarity, relevancy, and representatives.

The two instruments were piloted with 10% of the total sample which was 20 (Derycke et al., 2012). Piloting was conducted before data collection to assess the instruments' items and the time required to complete the questionnaires and test the instruments' readability among Jordanian nurses. In addition, data from the pilot study were not included in the final analysis. The questionnaires were administered to pilot nurses precisely as they were in the main study. The result indicates that these instruments were clear and had high internal consistency and content validity indexes, as reported previously.

3. Results

One hundred and eighty questionnaires were distributed, of which 150 were returned. Ten returned questionnaires were incomplete. Thus, these questionnaires were eliminated from data analysis. The final sample consisted of 140 questionnaires with a response rate of (82%).

Table 1 Demographics data of the sample (n=140)

Variable	Frequency (%)
Gender	
Female	73 (52.1)
Male	67 (47.9)
Marital status	
Single	47 (33.6)
Married	89 (63.6)
Divorced	4 (2.9)
Educational level	
BSN	118 (84.3)
Master or higher	22 (15.70
Type of hospital	
Private	70 (50%)
University-affiliated hospital	70 (50%)
Current work settings	
Floors	54 (38.6)
Units	51 (36.4)
Emergency	35 (25)
Variable	**Mean (SD)**
Age (years)	33.16 (6.43)
Total experience in nursing (years)	10.81 (6.03)
Total experience in the hospital (years)	10.34 (6.03)
Total experience in the current/floor (years)	9.25 (5.88)
Income	10056 (3264.55)

Sample Characteristics

A sample of 140 participants. The mean for female nurses was (n=73, 52.1), while the mean for male nurses was (n=67, 47.9%). Regarding marital status, about (n=89, 63.6%) were married, with (n=47, 33.6) were single, and (n=4, 2.9 %) were divorced or widowed. Regarding the education level, most of the sample held a BSN degree (n=118, 84.3%), while others held master's or higher degrees (n=22, 15.7%). The participants worked in private hospitals (n=70, 50%), while others worked in university-affiliated hospitals (n=70, 50%). Participants were recruited from floors (n=54, 38.6%), units (51, 36.4%), and emergency (n=35, 25%). The mean Age of participants was 33 years (SD 6.43), ranging from 23 to 47. The mean total experience in nursing was 10.81 years (SD 6.03), while the mean total experience in the current hospital was 10.34 (SD 6.03), with the mean of the total experience of the current unit/floor was 9.25 (SD 5.88). In terms of income, the mean score for earning annually was 00056 JOD (SD3264.55), ranging from 5000 to 16000. As shown in (Table 1).

Descriptive statistics of study variables

Descriptive statistics, including the mean and standard deviation for each item of perceived readiness for organizational change scale and the total mean score for this scale, were reported as shown in (Table 2). The average mean of perceived readiness for change for nurses was 4.36 (SD=1.19), which indicates that nurses perceived readiness for change as average. Looking at the items of this scale, the highest mean score was reported for item eight: "I am working hard to help improve aspects of the program or area in which I work." Conversely, the lowest mean score was reported for item number two, "I find ways to make the change fail."

Table 2 Means and Standard deviation for the items in perceived readiness for organization change scale

Items	Mean	SD
I work more because of the change.	4.27	1.51
I find ways to make the change fail.	3.08	1.71
I support change.	4.37	1.59
The program or area in which I work functions well and does not have any aspects which need Changing .	3.66	1.56
There's nothing that I really need to change about the way I do my job to be more efficient.	3.89	1.39
I've been thinking that I might want to help change something about the program or area in which I work.	4.35	1.54
I plan to be involved in changing the program or area in which I work.	4.26	1.49
I am working hard to help improve aspects of the program or area in which I work.	4.41	1.60
I am trying to make sure I keep changes/improvements my program/area has made.	4.37	1.60
I will resist any changes to the program or area in which I work.	3.72	1.80
Perceived Readiness for Change Scale	4.36	1.19

Furthermore, the mean score for the authentic leadership scale was reported as 2.42 (SD 0.74). Additionally, Authentic leadership was assessed across four subscales: self-awareness, internalized morals, balanced processing, and relational transparency. The mean scores for these sub-scales were as shown in Table 4, with the highest mean score related to internalized morals (M=2.59, SD= 0.69) and self-awareness (M=2.43, SD=0.83). In contrast, the lowest mean scores were related to relational transparency (M=2.27, SD=0.88) and balanced processing (M=2.33, SD=0.82).

The Relationship between demographics and study variables

The relationships between study demographics variables were analyzed using Pearson's s-moment correlation for continuous variables and point biserial for dichotomous variables to explore the relationships between these variables. Results indicated strong positive statistically significant correlations between Authentic leadership and perceived nurses' readiness for change ($r=0.65$, $p< 0.01$); this means that individuals who perceive their leader as more authentic are more exhibit a higher level of embracing readiness for organizational change. A negative moderate correlation was found between age and perceived readiness for organizational change ($r=-.29$, $p < 0.01$), suggesting that older individuals perceived low readiness to change. Total experience in nursing ($r=-.35$, $p < 0.01$), hospital ($r=-.32$, $p < 0.01$), and current units/floors ($r=-.31$, $p < 0.01$), indicates that individuals with higher total experiences in nursing and employment in current hospital and experience in current floor/units tend to perceive lower readiness for change. Sex, marital status, and income didn't have significant correlations, respectively ($r= .06$, $p > 0.05$), ($r=-.02$, $p > 0.05$), and ($r=.02$, $p > 0.05$).

Furthermore, the result of the analysis of Authentic leadership with study variables indicates that there was a moderate statistically significant negative relationship between Authentic leadership and total experience in nursing ($r=-.37$, $p < 0.01$), hospital ($r=-.35$, $p < 0.01$) and current units/floors ($r=-.34$, $p < 0.01$), suggesting that individuals with higher total experiences in nursing and current hospital and current tend to perceive their manager as lower authentic readiness for change, while sex, marital status and income not significantly correlated with authentic leader ($r= -.90$, $p > 0.05$), ($r=-.10$, $p > 0.05$), and ($r=-.12$, $p > 0.05$). (Table 3)

Relationship between Authentic leadership subscales and readiness for change scale

Pearson correlations were conducted to assess the direction and strength of the relationship between the Authentic leadership subscales and the perceived readiness for change scale. The result indicates that authentic leadership was positively and significantly associated with readiness for change ($r= .63$, $p < .01$). Indicating that Individuals who perceived their leaders as authentic were likely to have a higher level of perceived organizational readiness for change. Examining the relationship between Authentic leadership subscales and perceived readiness to change, relational transparency and self-awareness have the highest strong positive correlations ($r=.64$, $p < .01$) , ($r=.63$, $p < .01$). Suggesting that leaders who build trust and enhance communications contribute to greater readiness for change among employees. (Table 4)

Table 3 Pearson product-moment correlations between study variables and demograghics.

	1	2	3	4	5	6	7	8	9	10
1. sex	1									
2. Age	-0.12	1								
3. Hospital Name	-0.10	.40**	1							
4. Marital status	-0.07	.28**	.34**	1						
5. Total experience in nursing	-0.14	.93**	.45**	.34**	1					
6. Total experience in this hospital	-0.13	.91**	.42**	.31**	.98**	1				
7. Total experience in current unit/floor	-0.17	.84**	.32**	.20*	.89**	.91**	1			
8. Income	-0.13	.43**	.33**	.33**	.46**	.44**	.45**	1		
9. Total score for authentic	-.90	-.29**	-.20*	-.10	-.37**	-.35**	-.34**	-.12	1	
10. Total score for readiness for change	.06	-.32**	-.10	-.02	-.35**	-.32**	-.31**	.02	.65**	1

* P < .05 ,**p < .01

Table 4 Relationship between Authentic Leadership subscales and Readiness for change scale

	M	SD	Total Readiness for change scale
Internalized Moral	2.59	0.69	.62**
Self-Awareness	2.43	0.83	.63**
Relational transparency	2.28	0.88	.64**
Balanced processing	2.33	0.82	.61**
Total authentic leadership scale	2.42	0.74	.65**

* P < .05, **p < .01

Differences between the study variables are based on demographic characteristics.

An independent samples t-test was conducted to explore the mean differences in nursing authentic leadership and perceived readiness for organizational change according to nurses' gender, hospital type, and educational level. Results indicated that there were statistically significant differences in authentic leadership scores based on hospital types, private and educational hospitals (t (138) = 2.26, p=0.025); this indicates that the nurses who worked in private hospitals had authentic leadership scores higher than those who work in education affiliated hospital with mean differences was (0.28). No statistically significant differences were found in the mean scores of authentic leadership on other variables of gender (p=.24) and educational level(p=.97). Moreover, the results revealed that perceived readiness for change did not statistically differ based on gender, hospital type, and educational level respectively (p=.24), (p=.25) and (p=.52).(Table 5)

One-way ANOVA examined the mean differences between the authentic leadership scale and work settings (units, floors, and emergency). The results indicated that the mean score of authentic leadership statistically differed based on work settings F (139) =3.67, p=.028). Post hoc analysis using Tukey HSD indicated that the nurses who work on floors have a higher mean authentic leadership score than nurses who work at units (M= 2.57, SD=.47, p=0.028). However, there were no statistical differences between the nurses who worked on floors and emergency (p=.89) and those who worked in the units or emergency (p=.44). According to marital status, there were no significant differences between different groups (F(139) =.48,p=.62), post hoc Tukey HSD test revealed that there were no statistical differences between the authentic leadership score between single and married (p=.99), single and divorced or widow (p=.89) and between married and divorced or widow (p=.99).

Furthermore, the results indicated that the perceived readiness didn't significantly differ based on the work settings (F (2) =0.78, p=.46). Post Hock Tukey HSD test revealed that there were no statistical differences between working in the units and floors (p=.72), working in the floors and emergency (p=.84) and working at units and emergency (p=.44). The results revealed that there were no statistical differences between perceived readiness for change scores based on marital status (F(139) =.11,p=.89), post hoc Tukey HSD test revealed that there were no statistically differences between single and married (p=.99), single and Divorced or widow(p=.89) and between married and divorced or widow (p=.90) see (Table 4).

Table 5 Differences between the study variables based on demographic characteristics.

Variable	category	Authentic leadership	Perceived readiness for change
Gender	Female	2.49 (0.78)	4.30 (1.14)
	Male	2.34 (0.69)	4.43(1.14)
	T-test	.64	1.17
	p. value	.52	.24
Educational level	BSN	2.42 (0.73)	4.33 (1.20)
	Master or higher	2.41 (0.79)	4.51(1.17)
	T-test	0.03	-6.4
	p.value	.97	.52
Hospital	Hospital 1	2.56 (0.68)	4.48 (1.16)
	Hospital 2	2.28 (.77)	4.25 (1.22)
	T-test	2.26	1.14
	p.value	.025	.25
Marital status	Single	2.47 (0.72)	4.38 (1.15)
	Married	2.42 (0.76)	4.36 (1.21)
	Divorced or widow	2.12(0.60)	4.10 (1.60)
	F test	0.48	0.11
	p. value	.62	.89
Area of work	Critical units	2.20 (0.73)	4.21 (1.24)
	Floors	2.57 (0.74)	4.39 (1.12)
	Emergency	2.50 (0.64)	4.54 (1.24)
	F test	3.67	0.78
	P .value	0.028	0.46

Readiness for change predictors

A hierarchical multiple regression analysis test was performed to examine the unique predictors of perceived readiness for organizational change. The variables were entered in the Hierarchical

regression in the model as follows: Step 1 (Sex, hospital type, dummy marital status, dummy current work, educational level, age, total experience in nursing, hospital and unit/ward, and income), and Step two includes (total authentic leadership). The rationale for using this order is to control demographic variables. Results for this sequential multiple regression are summarized in (Table 6).

The result of Model 1 indicated that the overall model had small but statistically significant contributions to explaining 24 % of the perceived readiness for change. (R2=.24, F(127)=3.36, p =.0001, Adj R2= .17; R2 increment was .24). with the working settings (t=2.15,p=.01), total experiences in nursing (t=-2.58, p=.01), and income (t=2.60, p=.01), have significantly contributed to predicting the perceived readiness for change in this model. Authentic leadership significantly increased the R2 when entered in model 2 (R2=.50, F(126)=9.95, p < .0001, Adj R2=.45; R2 increment=.26, p < .0001) with 50% of the total model explained the variance of the perceived readiness for change. Authentic leadership was the only predictor that uniquely contributed to predictions of perceived readiness for change in this model (t=8, p < .000).

Table 6 Hierarchical regression for predictors of perceived readiness of organizational change through authentic leadership

Predictors	R	R2	Adj R2	ΔR2	F value	β	T
Model 1	0.49	0.24	0.17	0.24	3.36**		
Sex						-0.00	-0.05
Hospital type						-0.02	-0.21
Dummy marital (Single)						0.116	0.56
Dummy marital (Married)						0.29	1.33
Dummy Current work (Units)						-0.05	-0.46
Dummy Current work (Emergency)						0.20*	2.15*
Educational level (BSN)						0.09	1.12
Age						-0.04	-0.19
Total experience in nursing						-1.15*	-2.58*
Total experience in this hospital						0.78	1.78
Total experience in current unit/floor						-0.14	-0.72
Income						0.25*	2.60*
Model 2	0.71	0.50	0.45	0.26	9.59**		
Sex						-0.10	-1.53
Hospital type						-0.08	-1.00
Dummy marital (Single)						-0.03	-0.20
Dummy marital (Married)						0.05	0.27
Dummy Current Work (Units)						0.09	1.09
Dummy Current work (Emergency)						0.13	1.68
Educational level (BSN)						0.068	1.044
Age						-0.14	-0.80
Total experience in nursing						-0.58	-1.56
Total experience in this hospital						0.46	1.27
Total experience in current unit/floor						-0.00	-0.01
Income						0.08	1.02
Total authentic leadership						0.60***	8.02***

Note * P < .05, **p < .01,***p < .0001. β (Beta) standardized coefficient

Gender was dummy-coded (1 = Male, 0 = Female). hospital type was dummy-coded (1 = privet, 0=education-affiliated hospital). Marital status (1=single,1=married,0=divorced or widow). Dummy current work (1=units,1= emergency,0=floors). Educational level (1=BSN,0=master or higher)

4. Discussion

To the best of my knowledge, the current study has a unique contribution to the body of knowledge by investigating the relationship between authentic leadership and perceived nurses' readiness to change at healthcare organizations after controlling the sociodemographic variables. The findings revealed that the perceived readiness for change among nurses in the current study was at the average level, which is consistence with previous studies (Al-Hussami et al., 2018; Amarneh, 2017a; Mderis et al., 2024)This result indicates that the average level of perceived nurse readiness is common among nurses who work in Jordan, suggesting that they face similar obstacles and challenges in implanting change process within healthcare organizations. However, these studies used different tools, which should be cautious when comparing the findings across them; future studies should have to adopt standardized tools to easily compare the findings.

Furthermore, the primary findings from this study indicate a strong positive relationship between authentic

leadership and perceived readiness for change among nurses who work in healthcare organizations. This result aligns with a previous study conducted in a business discipline, suggesting that employees who view the leader as authentic tend to perceive readiness for change more positively (Bakari et al., 2017). Thus, the employees who perceive their leaders as authentic are emotionally and mentally prepared to adopt the change process. These findings fill the gap in the literature by providing evidence that explains how authentic leadership fosters the perceived readiness for organizational change among nurses who work in healthcare settings.

Moreover, in examining the influence of the demographics on the perceived readiness for organizational change, a negative correlation was found between age and perceived readiness for change in which older employees tend to be less ready for change than younger employees. This finding was consistent with prior research studies that underscore the influence of age on perceived readiness for change, in which older employees tend to have lower readiness for change than younger employees (Mderis et al., 2024; von Treuer et al., 2018). Moreover, older employees develop routines in their work that may become more resistant to change (Perregrini, 2019), younger employees tend to change more easily and tend to be more open to new change(Almuqati et al., 2023). These results contradicted the study conducted by (Storkholm et al., 2019), in which the older employees tend to perceive readiness for change higher than the younger employees, in which the older employees have more experience in dealing with change. In comparison, younger employees have less experience dealing with it. The instrumentation and study context play significant roles in different results.

In addition, total work experiences in nursing, total experience in the current hospital and the total experience in the current unit/floor correlate negatively with perceived readiness to change, which indicates that employees who have more experience tend to perceive low readiness for change; this results similar to previous studies conducted in Jordan (Dubois et al., 2013; Mderis et al., 2024). These findings contradict with studies indicated that the total experience is not associated with perceived readiness for change (Al-Hussami et al., 2018; Mrayyan, 2020). The inconsistency of the results from these findings indicates the differences in the methodology and sampling. Furthermore, Sex, marital status, income, and educational level not have significant correlations; these results were consistent with prior studies conducted in Jordan (Al-Hussami et al., 2018; Ibrahim Abou Shahbaz et al., 2023; Mderis et al., 2024; Maryland).

The analysis revealed several differences between demographic variables and perceived readiness for organizational change based on the results in (sex, hospital type, marital status, and current area of work, indicating that there were no statistical differences in the perceived readiness to change across these variables. This result consisted of prior studies. (Mderis et al., 2024), in contrast, these results contradict the study reported by (Amarneh, 2017b) he found that perceived readiness for change differs according to hospital type, as nurses who work in private hospitals being more ready for change than nurses who work in public hospitals. The current study noted slight differences between perceived readiness to change scores based on hospital type ; it was slightly higher in the private sector than in the education-affiliated hospitals. However, these differences were not statistically significant. Further future studies involving a larger sample size are needed to validate these findings.

Furthermore, the mean score for authentic leadership and its subscales was reported in the current study was at a moderate level, this finding consistency with two studies that were conducted in Jordan among nurses (Al-Hassan et al., 2023; Mrayyan et al., 2022), this consistency in the findings across the studies underscore the persistence of nurses view their leaders as in authentic leaders and the importance of authentic leadership to facilitate the change process. Additionally, In relation to Authentic subscales, the highest mean related to internalized morals and self-awareness, while the lowest mean scores were related to relational transparency and balanced processing; these findings are congruent with prior studies (Al-Hassan et al., 2023; Assi et al., 2024). These findings highlight the role of Arab culture in shaping leadership perceptions, as in Arab culture, the leaders are committed to moral and ethical principles. The relatively lowest mean in the transparency in this study may reflect the organizational factors that affect the openness of the leaders to share the information with subordinates. Future research may need to understand authentic leadership in the Arab culture.

A hierarchical multiple regression analysis findings revealed that the overall model explains approximately 24% of the variance of the perceived readiness for change from all demographics variables as predictors, with three variables having significant contributions to this model; the results indicate that nurses who work in the emergency department have substantial predictors of perceived readiness for change compared with nurses who work on hospital floors. Moreover, the regression model predicts that nurses with more nursing experience are likely to have a lower level of perceived readiness for change; the results also suggest that nurses with higher income may feel a higher level of readiness for change. However, when Authentic leadership was added to the

second model, it emerged as a unique and significant predictor; the overall model explained 50% of the variance for the perceived readiness for change, with authentic leadership as the only significant predictor for this model after controlling sociodemographic variables. These results underscore the unique contribution of authentic leadership in improving the perceived readiness for change among nurses within healthcare settings.

These results align with prior studies that reported that leadership behavior was a strong predictor of perceived nurses' readiness for change. (Al-Hussami et al., 2018; Nordin, 2011)These previous findings have found associations between various traditional leadership behaviors and perceived readiness for change among nurses. However, the current study has a unique contribution to the body of the literature as it introduces authentic leadership in predicting perceived readiness for change. The current study provides valuable insights for organizations aiming to adopt an authentic leadership style that fosters trust, enhances communications and transparency, and adheres to moral and ethical principles to improve the perceived readiness of change among nurses and thus facilitate successful organizational transition.

Implication of the study

The current study's results guide nurse leaders to encourage preparedness for change within their organizations. It was noted that authentic nurse leaders are known for their transparency and proficient communication skills. These skills play a crucial role in fostering and facilitating the change process. Additionally, authentic nurse leaders need to establish trust within the team, as this is vital for promoting collaboration and enhancing overall preparedness among nurses in the organization, thereby improving the successful execution of change initiatives. Furthermore, implementing a leadership training program focused on authentic leadership communication techniques that promote honesty, trust, and openness would significantly improve the nurse's manager's authentic leadership skills; by cultivating these behaviors, an organization can enhance employees' perceptions of leadership authenticity and thus fosters the readiness of the change.

Limitation

This study was conducted as a cross-sectional design; therefore, establishing causality is not feasible, and findings are interpreted cautiously. Convenience sampling limits the generalization of the results; future studies will use randomization to enhance the validity of the results. Future studies would have different hospital types across regions to improve the generalizability of the findings.

5. Conclusion

The perceived readiness for change within healthcare organizations is critical in successful change transformation. This research highlights the crucial role of authentic leadership in predicting and facilitating the readiness for change among nurses. Therefore, Improving leadership skills to communicate authentically improves nurses' perception of authentic leadership that ultimately foster employees' readiness for change.

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