

The impact of authentic leadership on nurses' locus of control and general self-efficacy during the COVID-19 pandemic



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ABSTRACT

The COVID-19 pandemic has presented unique challenges to healthcare providers, significantly impacting their well-being. Recognizing the importance of supporting healthcare professionals, this study investigates the interplay between authentic leadership, locus of control, and general self-efficacy among nurses during the pandemic. Employing a descriptive cross-sectional approach, 268 staff nurses participated in this study, conducted in the Tabuk Region of Saudi Arabia, with King Fahad and King Khaled Hospitals as the primary referral centers. Convenience sampling was utilized, and data collection was carried out using a Google Form survey questionnaire from December 2022 to January 2023. The study revealed that participants perceived their leaders as effective and authentic, and they exhibited a stronger external locus of control and higher General Self-Efficacy (GSE). Significant differences were observed based on nationality, ward assignment, and authentic leadership, with associated implications for locus of control and GSE. Authentic leadership exhibited a moderate positive correlation with the external locus of control and a strong positive correlation with the internal locus of control. However, no significant correlation was found between authentic leadership and GSE. These findings emphasize the potential of leadership development programs to nurture genuine leadership skills among nurse managers, creating conducive work environments that foster self-efficacy and enhance retention of newcomers to the nursing profession.

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1. Introduction

Authentic leaders provide supportive environments that foster employee autonomy and enthusiasm for work; employees who feel supported are more inclined to exhibit proactive behaviors (Hu et al., 2018). Sincere leaders can have a tremendous impact on enhancing the working circumstances of staff members and increasing their self-esteem, so they can handle the demands of the job and prevent burnout and poor mental health (Laschinger et al., 2013). It is assumed that real leadership might be recognized as a useful organizational leadership strategy for handling complex problems. Authentic leaders support others' autonomy, competence, and job happiness by providing them with opportunities to gain new skills, which additionally helps them to

develop their own self-awareness and authenticity (Wong and Cummings, 2009). Furthermore, the application of genuine leadership theory improves the understanding of the connection between leadership traits and burnout experiences (McPherson et al., 2022).

Authentic leaders may have a tremendous impact on enhancing the working circumstances and boosting the self-esteem of their employees, fostering their ability to handle the demands of the job, preventing burnout, and maintaining good mental health. Genuine leadership and actions that are both empowering and helpful have been linked to higher levels of engagement and productivity (Alshammari et al., 2020). This is true because strong, positive emotions, such as self-confidence and optimism, serve as the foundation of authentic leadership and the creation of a tranquil psychological and social environment. Putting one's beliefs and aspirations into practice as a leader may accomplish this outcome. True leadership involves expanding one's own perspective, developing the skills of one's subordinates, and promoting a healthy work environment (Laschinger et al., 2013). Nurses

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can be differentiated based on their generalized expectancy concerning their internal and external control of life events and outcomes. The degree to which a nurse perceives events to be under her/his control is considered internal locus while being under the control of external factors is external locus. Health locus of control consists of individual beliefs based on past experiences in health issues, and having external or internal control over them in a way that could affect health (Wolinsky et al., 2010).

Locus of control is an individual's perception of control over causes for success and failure. It is generally divided into the categories of external and internal. Individuals with an external locus of control believe that their surroundings control the events of their lives, rather than anything that they personally do (Liang et al., 2019). A person with external control believes that life events are determined by outside forces or the power of others, while a person with internal control feels that life events are under their control and that they are accountable for them (Macsinga and Nemeti, 2012). Therefore, it is possible to say that locus of control is a diagnostic variable revealing an individual's perspective of their position and environment as well as their function, rate, and impact on both successful events and failures in their life (Asgari and Vakilli, 2012). To this end, managers who prioritize employee locus of control and customize staff evaluations and ongoing education programs to match the individual requirements of their employees may foster an environment in which each employee may advance both personally and professionally (Gibbs, 2022).

General self-efficacy can be used to predict health behaviors and quality of life (Cramm et al., 2013). Higher levels of self-efficacy have been found to be linked to better personal success and wellbeing and less actual fatigue in healthcare personnel (Milam et al., 2019). Fathi et al. (2019) maintained that self-efficacy is a superior indicator of quality of life. In the nursing context, nurses who have consistently low self-efficacy (SE) scores can have a negative impact on both their other personality traits and their work-related characteristics (Roh et al., 2013). Low self-efficacy prevents nurses from performing to the best of their ability at work, which may have a negative impact on how they view themselves and their work. It can also cause nurses to become both less interested in and less satisfied with their work (Dadipoor et al., 2021). Self-efficacy is expected to occur when a person has an internal locus of control, feels in charge of their decisions, and is committed to making them. If an internal locus of control serves as the foundation for relating decisions to something within the individual, one must consider how trust in internal self-directed activities can affect one's decision-making (Gibbs, 2022). Authentic leaders who have the capacity to transform and sustain an organization's success can impact such a premise.

The impact of authentic leadership on the locus of control and general self-efficacy of nurses during the COVID-19 pandemic has not been explored in the literature. While the pandemic poses a distinct set of

difficulties for healthcare providers, particularly in terms of their own health, it is crucial to provide them with reinforcement. In this circumstance, it can lead to healthcare professionals acting proactively to improve response times. This study's main contribution is in the framework it offers for analyzing how nurses' locus of control and overall self-efficacy are affected by authentic leadership. This framework will assist health authorities in designing an educational program to help nurses work safely and improve their quality of life, particularly during the COVID-19 pandemic. Therefore, this study aimed to investigate the relationship of authentic leadership to the locus of control and general self-efficacy of nurses during the COVID-19 pandemic.

2. Methods

2.1. Design

A descriptive-cross sectional approach was employed to investigate the impact of authentic leadership on the locus of control and general self-efficacy of nurses during the COVID-19 pandemic.

2.2. Participants

The study participants were staff nurses working in government hospitals in the Tabuk Region of the Kingdom of Saudi Arabia such as King Khaled Hospital and King Fahad Hospital. The researcher used convenience sampling. The sample size was calculated using the Raosoft online calculator (http://www.raosoft.com/sample_size.html); a 95% confidence interval yielded 268 participants. The inclusion criteria included English-speaking nurses with at least a year of prior work experience providing direct patient care, whether on a COVID or non-COVID ward, in the Kingdom of Saudi Arabia.

2.3. Data collection

The researcher invited staff nurses to participate in the study by sending them a link through a Google Form survey questionnaire via WhatsApp. A contact of the researcher facilitated the participants receiving the link. Information regarding the study (e.g. the study objectives, extent of participation, and the rights of the participants) was made available to the participants through the link. The participants also received a note instructing them to access the link and complete the questionnaire if they chose to participate. Data were collected between January and February 2023.

2.4. Questionnaires

The researcher used three questionnaires. The Authentic Leadership Self-Assessment Questionnaire of Northouse (2010) had 16 items. They were answered with a 5-point scale: 1 = Strongly disagree,

2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree. Responses on all items were summed to get the overall authentic leadership score. The following parameters were used to assess it: Very high = 64–80, High = 48–64, Low = 32–48, and Very low = 16–32. Stronger performance was indicated by higher scores. Scores in the lower ranges reflected less effective, authentic leadership.

The Locus of Control Scale (LCS) is a 29-item questionnaire that assesses an individual's degree of internal-external control, or the extent to which participants perceive events as the outcome of either their own choices or outside forces. The researcher followed the scoring system of the original author. Higher scores indicated an External Locus of Control and lower scores indicated an Internal Locus of Control (Rotter, 1966).

The general self-efficacy rating scale was adapted from Schwarzer and Jerusalem (1995). The general self-efficacy questionnaire had a 10-item psychometric scale that measured positive self-beliefs to handle a range of demanding situations in life. The questionnaire was answered by the following: 1 = Not at all true, 2 = Hardly true, 3 = Moderately true, and 4 = Exactly true.

2.5. Data analysis

The researcher used SPSS version 26 to examine the data. Frequency and percentage were utilized to ascertain the participant's demographic characteristics. Pearson's correlation coefficient was used to examine the association between the three variables-authentic leadership, locus of control, and general self-efficacy.

3. Results

The demographic characteristics of the participants are presented in Table 1. Of the 268 participating nurses, the majority were 20–34 years of age (59.3%), female (51%) and married (47.8%). At least 34.3% had 4–6 years of hospital experience. Most were Saudi (56%) and had been to a non-COVID ward (57.8%).

The descriptive results of authentic leadership, locus of control, and GSE are presented in Table 2. Accordingly, the participants perceived their leaders as effective, authentic leaders, and they perceived themselves to have a better external locus and GSE.

The differences among the demographic characteristics and authentic leadership, locus of control, and GSE are presented in Table 3. No significant differences were found between the gender of the participants and authentic leadership, locus of control, or GSE. However, there was a significant difference in nationality and authentic leadership ($t = -6.123$; $p < 0.000$), with non-Saudis (61.98 ± 5.340) perceived higher than their Saudi counterparts. In addition, a significant difference was noted between nationality and GSE ($t = -2.227$; $p = 0.027$), with non-Saudis perceived higher (26.22 ± 5.015) than their Saudi counterparts. Regarding

ward assignment, significant differences were noted in authentic leadership ($t = -3.376$; $p = 0.001$), with non-COVID perceived higher (58.02 ± 7.722), and external locus ($t = -2.080$; $P = 0.038$) with the non-COVID ward perceived higher than its COVID ward counterpart (45.91 ± 7.860).

Table 1: Demographic characteristics of the participants (N= 286)

	Frequency	Percent
Age		
20-34 years old	159	59.3
35-50 years old	103	38.4
51 years old and above	6	2.2
Gender		
Male	130	49
Female	138	51
Civil status		
Single	125	46.6
Married	128	47.8
Separated/Divorced	15	5.6
Years of hospital experience		
1-3 years experience	90	33.6
4-6 years experience	92	34.3
7 years and above	86	32.1
Nationality		
Saudi	150	56
Non-Saudi	118	44
Ward assignment		
COVID ward	113	42.2
Non-COVID ward	155	57.8

Table 2: Descriptive results of authentic leadership, locus of control, and GSE

	Mean	Std. deviation
Authentic leadership	57.1567	8.02511
External Locus	45.3843	7.87292
Internal	24.9478	4.59819
GSE	25.1194	4.75551

Concerning civil status, only authentic leadership was found significant ($F = 14.432$; $P < 0.000$), with divorced/separated participants (67.46 ± 5.501) perceived higher than their counterparts. Regarding age, it was found to have a significant difference with authentic leadership ($F = 6.0432$; $P = 0.003$), which was highly perceived by those 35–50 years old (59.27 ± 8.360), in comparison to those in the other age brackets. In addition, the age and internal locus of control were also found significant ($F = 6.205$; $P = 0.002$); it was highly perceived by those 51 years old and above (27.66 ± 3.614), in comparison to other age brackets. Lastly, the hospital experience was found to have no significant differences with authentic leadership, external/internal control, or GSE.

The correlations among authentic leadership, external and internal control, and GSE are presented in Table 4. It should be noted that authentic leadership had a moderate positive relationship ($r = .366$; $P = 0.01$) with the external locus, but a strong positive correlation ($r = .416$; $p = 0.01$) with the internal locus of control. No correlation was found between authentic leadership and GSE.

4. Discussion

The primary objective of the present investigation entailed an examination of the nexus between authentic leadership and the locus of

control, as well as the general self-efficacy levels, among nurses amidst the backdrop of the COVID-19 pandemic. The cohort of nursing professionals under scrutiny consistently appraised their superiors as embodying the attributes of efficacious and authentic leaders. This characterization hinges on

the leaders' manifest moral rectitude, their introspective self-awareness, their transparency and candor in interpersonal interactions, and their propensity for rendering equitable judgments (Gill and Caza, 2018).

Table 3: Differences among demographic characteristics and authentic leadership, locus of control, and GSE

		Mean	Std. deviation	t	df	Sig. (2-tailed)
Gender						
Authentic leadership	Male	58.64	6.628	.711	266	.478
	Female	57.07	8.098			
External Locus	Male	45.28	5.253	-.048	266	.962
	Female	45.38	7.999			
Internal	Male	24.78	3.142	-.135	266	.893
	Female	24.95	4.669			
GSE	Male	26.21	2.224	.885	266	.377
	Female	25.05	4.852			
Nationality						
Authentic leadership	Saudi	55.5150	8.13206	-6.123	266	.000
	Non-Saudi	61.9853	5.34061			
External Locus	Saudi	45.1450	8.07465	-.853	266	.394
	Non-Saudi	46.0882	7.25801			
Internal	Saudi	24.6650	4.59328	-1.733	266	.084
	Non-Saudi	25.7794	4.54446			
GSE	Saudi	24.7450	4.61699	-2.227	266	.027
	Non-Saudi	26.2206	5.01593			
Ward assignment						
Authentic leadership	COVID-Ward	54.1333	8.38171	-3.376	266	.001
	Non-COVID-ward	58.0288	7.72218			
External Locus	COVID-Ward	43.5333	7.69650	-2.080	266	.038
	Non-COVID-ward	45.9183	7.86038	-2.104		
Internal	COVID-Ward	24.1833	4.48157	-1.465	266	.144
	Non-COVID-ward	25.1683	4.61834	-1.489		
GSE	COVID-Ward	25.1167	5.19808	-.005	266	.996
	Non-COVID-ward	25.1202	4.63342	-.005		
Civil Status						
Authentic leadership	Single	56.5408	8.12298	14.432	2	.000
	Married	56.5484	7.50860		265	
External Locus	Separated/Divorced	67.4667	5.50151		267	
	Single	57.1567	8.02511	2.608	2	.076
Internal	Married	44.8776	6.61343		265	
	Separated/Divorced	45.2774	8.77758		267	
GSE	Single	45.3843	7.87292		265	.287
	Married	24.8776	3.91736		267	
GSE	Separated/Divorced	24.5484	4.96768	1.256	2	
	Single	44.3843	7.97292		265	.366
GSE	Married	25.8776	3.91736		267	
	Separated/Divorced	24.5484	4.96768	1.256	2	
Age						
Authentic leadership	20-34 years old	55.8176	7.60484	6.043	2	.003
	35-50 years old	59.2718	8.36097		265	
	51 years old and above	56.3333	5.95539			
External Locus	20-34 years old	45.1950	8.27493	.803	2	.449
	35-50 years old	45.4466	7.33074		265	
	51 years old and above	49.3333	5.46504			
Internal	20-34 years old	24.1698	4.59665	6.205	2	.002
	35-50 years old	25.9903	4.41587		265	
	51 years old and above	27.6667	3.61478			
GSE	20-34 years old	24.7233	4.55614	1.360	2	.258
	35-50 years old	25.6990	5.12555		265	
	51 years old and above	26.6667	1.86190			
Hospital Experience						
Authentic leadership	1-3 years experience	56.6923	7.15304	.358	2	.699
	4-6 years experience	57.9298	7.02002		265	
	7 years and above	57.0058	8.53099			
External Locus	1-3 years experience	46.2051	6.15236	.258	2	.772
	4-6 years experience	45.1053	8.13213		265	
	7 years and above	45.2907	8.15617			
Internal	1-3 years experience	25.0513	3.26020	.987	2	.374
	4-6 years experience	24.1930	4.45389		265	
	7 years and above	25.1744	4.88988			
GSE	1-3 years experience	23.9487	4.00624	1.478	2	.230
	4-6 years experience	25.0877	4.46126		265	
	7 years and above	25.3953	4.98367			

Comparable conclusions were predicted from additional investigations both in Saudi Arabia and throughout the world (Alilyyani, 2022). Hirst et al. (2016) argued that authentic leaders can inspire

followers to act in positive ways by setting an example of transparency and sharing knowledge. Wei et al. (2020) maintained that people with these traits were more likely to form relationships based

on trust and cooperation, which are vital components of high-performing groups. It could be argued that COVID-19 caused a revolutionary shift in service delivery, as nurses saw firsthand how rapidly new regulations, procedures, and even entirely new laws could be implemented. Contextual elements, such as an organization’s culture, politics, and structure (Shirey, 2017) could either inhibit or encourage the growth of healthy workplace environments. The ability to establish healthy working environments is dependent on these aspects. Conversely, participants perceived themselves to have a better external locus and GSE, which indicates that the nurses had a strong belief in their own abilities and a firm conviction that external factors, rather than their own actions, determined the outcomes of their lives (Liang et al.,

2019). Nurses’ external locus of control could originate from patients, physicians, or even the Covid-19 virus itself (Fawaz et al., 2020). Despite this fact, the nurses were capable of achieving the desired outcome and completing the task at hand, which is an illustration of a point that self-efficacy is postulated to emerge when an individual believes in the validity of their own choices and is willing to stick by them (Gibbs, 2022). Nevertheless, having a sense of success and completion serves as a type of reinforcement to bring about a change in behavior, and it is an indication of an internal locus of control (Shorey and Lopez, 2021), which runs contrary to the outcome of this study. Health leaders and policymakers need to develop initiatives to educate the public on the importance of health locus of control in enacting behaviors that promote health.

Table 4: Correlations among authentic leadership, external and internal control, and GSE

	Authentic leadership	External locus	Internal	GSE
Authentic leadership	1	.366**	.416**	.057
External Locus		1	.923**	.039
Internal			1	
GSE				1

** : Correlation is significant at the 0.01 level (2-tailed)

The gender of the participants was not found to have a significant difference in authentic leadership, locus of control, or GSE, which means that authentic leadership, locus of control, and GSE remain constant regardless of gender. This finding validates those of other investigations (Tibbs et al., 2016; Saleh et al., 2018). However, there was a significant difference in nationality and authentic leadership, with non-Saudis perceived as higher than their Saudi counterparts. This means that the non-Saudi nurses promoted the open exchange of information that is required to make choices while simultaneously welcoming the feedback of adherents. Nurses from other countries who come to work in Saudi Arabia do so on a contract that is renewed annually; it requires them to leave their family and friends behind. They count on the nursing leadership for both personal and professional encouragement (Hussain et al., 2017). In concurrence with Hussain and partners’ study, which also depended heavily on expat nurses, authentic leadership had a negative correlation with workload (Aboshaiqah, 2015). This finding suggests that authentic leadership may have a significant impact on engagement characteristics such as dedication and absorption. Furthermore, research conducted with the participation of non-Saudi nurses working as expatriates in Saudi Arabia revealed a favorable correlation between authentic leadership and the presence of protégé experience and peer support (Abo-Ali et al., 2021).

For the sake of ensuring a seamless transition from the current to the new healthcare system, it is imperative that an effective, authentic leadership style be adopted. More research is imperative to providing decision-makers in the Kingdom with the information they need to make sound judgments concerning the management of nurses. A significant difference was additionally noted between

nationality and GSE, with non-Saudis perceived higher than their Saudi counterparts, which means that non-Saudi nurses have a greater sense of control over their patients’ environments and behaviors than their Saudi counterparts. This finding supports the study of Abo-Ali et al. (2021), where the authors noted that non-Saudi healthcare personnel in Saudi Arabia reported better levels of self-efficacy than their Saudi colleagues (Ali and Abood, 2020). The nature of the workplace, the degree of anxiety brought on by the COVID-19 virus, the effectiveness of communication, and the types of patients all played a role in explaining this finding. The current COVID-19 pandemic has placed a significant burden on nurses, which may lead to a decline in their sense of self-efficacy, and, consequently, the quality of care that they provide their patients.

Regarding ward assignment, significant differences were noted in authentic leadership, with non-COVID perceived higher, which means that authentic leadership was found to be the cause of an increase in both the amount of additional effort put in by nurses and their perceived leader’s effectiveness. Studies have shown that organizations with an authentic leadership style have happier, more productive workers (Ali and Abood, 2020; Ahmed et al., 2019). Because of this, the nurses are more driven (Sabbah et al., 2020) and a higher level of commitment is acquired from them using enabling tactics and the evocative accomplishments of their ideas (Musunguzi et al., 2018). If this is indeed the case, then it is recommended that nurse supervisors take charge in a variety of ways during the COVID-19 pandemic, depending on the specific demands of the individual wards. Managers in the nursing field can improve their own standing as leaders by facilitating the development of nurse leaders by providing them with the resources they need to exercise autonomy

in their professional practice. Ward assignment was also found significant to external locus of control, with the non-COVID wards perceived higher than their COVID-ward counterparts. This indicates that nurses tend to attribute the results of their lives and the outcomes of their patients to chance rather than their own efforts (Liang et al., 2019). Furthermore, nurses with a higher external locus of control placed more trust in the health system of the Kingdom than they did in their own abilities to shield them from health problems (Cheung et al., 2020). Nonetheless, nurses may develop an external locus of control due to influences such as those from patients, co-workers, physicians, and the physical setting of their jobs. This is comparable to Cheung's et al. (2020) study, which demonstrated that COVID-19 specific healthcare simulation training programs enhanced the personal strengths of healthcare workers to a significant extent (Demir and Zincirli, 2021). These strengths included assertiveness, mental preparedness, self-efficacy, and an internal locus of control. Because they believe it is their duty to take precautions against the virus, nurses working in the COVID ward may have an internal locus of control. There is an opportunity for hospital administrators to take part in professional development programs that offer health locus of control education for nurses (Pasay-an and Alsrour, 2022).

Concerning civil status, only authentic leadership was found with divorced/separated participants perceived as higher than their counterparts. This suggests that those who have been through a divorce or separation tend to be more open, honest, and self-aware than their married or single peers. However, the findings of Demir and Zincirli's (2021) study indicated that the participants' opinions of authentic leadership did not vary, regardless of whether the participants were married or single at the time of the investigation. From what could be gleaned from the existing literature, it appears that identical findings were obtained by other researchers (Kocak and Ohsan, 2022; Başaran and Kiral, 2020). This disparity could be explained by the fact that the other studies only used married and single participants. Leader development workshops stressing the significance of authentic leadership qualities could be provided to nurses by hospital administrators.

Regarding age, it was found to have a significant difference with authentic leadership, which was perceived highly by those 35–50 years old, in comparison to the other age brackets. This means that, as people become older, they develop a greater tendency toward enhanced self-awareness, self-management, social awareness, and stronger social skills. These results are consistent with the findings of previous research (Snowden et al., 2018; Alshammari et al., 2020). Snowden et al. (2018) claimed that older nurses should be given hiring preference because they have a more developed set of intellectual abilities. As suggested by the study's findings, leaders who are educated to spot exceptional skills in the nursing profession can adopt

this technique. In addition to supporting and advancing their organization's aims, a nurse's professional advancement can be facilitated by this method (Pasay-an and Alsrour, 2022).

Age and internal locus of control were found significant and were highly perceived by those 51 years old and above, in comparison to other age brackets. This result may be attributed to the fact that older nurses feel stability and security due to prolonged years of experience in their jobs, which makes them capable of coping with and managing emergencies and difficult work situations. They have increased skills, capabilities and mature cognitive abilities (Kalil et al., 2019). Past investigations have found a correlation between an internal locus of control and age (Kalil et al., 2019; Mawson et al., 2022). An underlying belief that the stressfulness of most circumstances was almost never outside of their control was found among older nurses. Because it was true regardless of whether the external conditions could be altered or not, this was an excellent illustration of an internal locus of control (Al-Dossary et al., 2022). Consequently, experienced nurses who are already over the age of 51 may continue to have an advantage in the job market. Moreover, it may be feasible to better understand how 'internality' in younger nurses may be cultivated through in-depth research on the relationship between internal locus of control and older nurses. The relevance of this finding extends further into the future. Any strategy that has the potential to increase resistance in the post-COVID-19 era must be actively investigated, at the very least (Maine, 2020).

The hospital experience was found to have no significant differences with authentic leadership, external/internal locus of control, or GSE, which suggests that the nurses' ability to recover and continue to be dedicated to achieving their objectives does not depend on their time spent working in hospitals. This additionally shows that these nurses are more resilient to the effects of COVID-19 (Pasay-an, 2020), and they may approach the pandemic with confidence in their ability to control it (Aljarboa et al., 2022; Fateh et al., 2021).

It should be noted that authentic leadership has a moderate positive relationship with the external locus of control, which means that authentic leadership is a result determined by factors that are outside the control of the nurses. This finding is relatively similar to those of Maine's (2020) study, which found a positive correlation between authoritarian parenting and having an external locus of control. Of note, authentic leadership has a strong positive correlation with internal locus of control, which implies that nurses who take personal responsibility for their professional development and advancement frequently succeed in authentic leadership roles. These results corroborate the association between authentic leadership and an internal locus of control, which has been found in prior research. Previous studies have shown that internal locus of control and authentic leadership

correlate positively with each other (Fallatah et al., 2017). Therefore, human resource practitioners might look for a specific trait set and competencies (Alshammari et al., 2022) while recruiting nurses for employment in their workforce. This would enable hospitals to gain from future innovative activities. No correlation was found between authentic leadership and GSE, which means that, notwithstanding their general self-efficacy, the respondents' authentic leadership remains intact. Although this finding is similar to those of the study by Fallatah et al. (2017) it runs counter to the findings of earlier studies (Jaworski et al., 2022). The authors demonstrated that self-efficacy was positively correlated with authentic leadership, and they additionally illuminated that having a high level of self-efficacy makes it possible for individuals to build authentic leadership skills more efficiently. This disparity may be because the authors relied on a broad definition of authentic leadership, according to which self-awareness of one's own capabilities as well as one's strengths and limitations is an essential component of authentic leadership.

4.1. Study implications

Implications for present-day nursing education can be drawn from the findings, particularly regarding the development and strengthening of leadership abilities and the creation of hands-on workshops focusing on this area. Mentors need to be more adaptable in terms of the approaches they use to coach their mentees. Indeed, a mentoring-based strategy may be essential in this setting. The current study findings accentuate the value of authentic leadership in nursing, particularly in its ability to foster relationships of trust between nurses on the frontlines. This research lends credence to the idea that happier, more invested nurses have a positive effect on patient outcomes.⁵⁵ The current study findings indicate that developing nurse managers' real leadership qualities through leadership training could be an effective technique for creating productive workplaces that foster self-efficacy, and subsequently help to keep newcomers in the field. Health leaders and policymakers need to create initiatives to educate the public on the importance of internal locus of control for nurses. Moreover, it is additionally suggested that extensive research be formulated and conducted regarding nurses' internal locus of control.

5. Conclusion

The participants perceived their leaders as effective authentic leaders, and they perceived themselves to have a better external locus and GSE. There was a significant difference between nationality authentic leadership and GSE. Regarding ward assignment, significant differences were noted in authentic leadership and external locus of control. Concerning civil status, only authentic leadership was found to have significance. Age had significant

differences with authentic leadership and internal locus of control. The hospital experience was found to have no significant differences with authentic leadership, external/internal control, or GSE. Authentic leadership had a moderate positive relationship with the external locus of control, and it had a strong positive correlation with the internal locus of control. Conversely, there was no correlation between authentic leadership and GSE. These results contribute to fostering true leadership skills in nurse managers. However, leadership development programs may provide a useful strategy for generating productive workplaces that encourage self-efficacy and thereby help to retain newcomers to the profession.

Compliance with ethical standards

Ethical consideration

This study was reviewed and approved by the Ministry of Health (Tabuk Institutional Review Board) IRB # TU-077/023/192. The researcher ensured that informed consent was obtained from all subjects involved in the study.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Abo-Ali EA, Al-Rubaki S, Lubbad S, Nchoukati M, Alqahtani R, Albraim S, Ghareeb WA, Al-Haffashi B, Alghamdi F, and Zaytoun S (2021). Mental well-being and self-efficacy of healthcare workers in Saudi Arabia during the COVID-19 pandemic. *Risk Management and Healthcare Policy*, 14: 3167-3177.
<https://doi.org/10.2147/RMHP.S320421>
PMid:34349577 PMCID:PMC8328379
- Aboshaiqah AE (2015). Nursing work environment in Saudi Arabia. *Journal of Nursing Management*, 23(4): 510-520.
<https://doi.org/10.1111/jonm.12164> PMid:24112380
- Ahmed AK, Ata AA, and Abd-Elhamid ZN (2019). Relationship between the leadership behaviors, organizational climate, and innovative work behavior among nurses. *American Journal of Nursing Research*, 7(5): 870-878.
- Al-Dossary RN, AlMahmoud S, Banakhar MA, Alamri M, Albaqawi H, Al Hosis K, Aljohani MS, Alrasheadi B, Falatah R, Almadani N, and Aljohani K (2022). The relationship between nurses' risk assessment and management, fear perception, and mental wellbeing during the COVID-19 pandemic in Saudi Arabia. *Frontiers in Public Health*, 10: 992466.
<https://doi.org/10.3389/fpubh.2022.992466>
PMid:36438216 PMCID:PMC9685659
- Ali HM and Abood SA (2020). Relation between leadership styles and behaviors of nurse managers' and organizational commitment of staff nurses. *Minia Scientific Nursing Journal*, 7(1): 54-62. <https://doi.org/10.21608/msnj.2020.188021>
- Alilyyani B (2022). The effect of authentic leadership on nurses' trust in managers and job performance: A cross-sectional study. *Nursing Reports*, 12(4): 993-1003.
<https://doi.org/10.3390/nursrep12040095>
PMid:36548168 PMCID:PMC9784480

- Aljarboa BE, Pasay An E, Dator WL, Alshammari SA, Mostoles Jr R, Uy MM, Alrashidi N, Alreshidi MS, Mina E, and Gonzales A (2022). Resilience and emotional intelligence of staff nurses during the COVID-19 pandemic. *Healthcare*, 10(11): 2120. <https://doi.org/10.3390/healthcare10112120> **PMid:36360460** **PMCID:PMC9691039**
- Alshammari F, Pasay-an E, Gonzales F, and Torres S (2020). Emotional intelligence and authentic leadership among Saudi nursing leaders in the Kingdom of Saudi Arabia. *Journal of Professional Nursing*, 36(6): 503-509. <https://doi.org/10.1016/j.profnurs.2020.04.003> **PMid:33308547**
- Alshammari SA, Alruwaili AS, Aljarboa BE, Mina E, Cajigal J, Alreshedi MS, Mostoles R, Alrashidi N, Maestrado R, and Buta J (2022). Mapping out competencies of emergency department nurses: Its influencing factors and barriers. *Hail Journal of Health Sciences*, 4(2): 47-51. https://doi.org/10.4103/hjhs.hjhs_23_22
- Asgari MH and Vakili M (2012). The relationship between locus of control, creativity and performance of the educational department employees in the west of Mazandaran. *International Research Journal of Applied and Basic Sciences*, 3(17): 255-256.
- Basaran R and Kiral E (2020). The relationship between authentic leadership and work engagement. *International Journal of Contemporary Educational Research*, 7(2): 351-363. <https://doi.org/10.33200/ijcer.767560>
- Cheung VKL, So EHK, Ng GWY, So SS, Hung JLK, and Chia NH (2020). Investigating effects of healthcare simulation on personal strengths and organizational impacts for healthcare workers during COVID-19 pandemic: A cross-sectional study. *Integrative Medicine Research*, 9(3): 100476. <https://doi.org/10.1016/j.imr.2020.100476> **PMid:32802743** **PMCID:PMC7365062**
- Cramm JM, Strating MM, Roebroek ME, and Nieboer AP (2013). The importance of general self-efficacy for the quality of life of adolescents with chronic conditions. *Social Indicators Research*, 113: 551-561. <https://doi.org/10.1007/s11205-012-0110-0> **PMid:23874059** **PMCID:PMC3696170**
- Dadipoor S, Alavi A, Ghaffari M, and Safari-Moradabadi A (2021). Association between self-efficacy and general health: A cross-sectional study of the nursing population. *BMC Nursing*, 20(1): 1-6. <https://doi.org/10.1186/s12912-021-00568-5> **PMid:33743692** **PMCID:PMC7981816**
- Demir H and Zircirli M (2021). The relationship between teachers' perceptions of organizational justice and authentic leadership and their levels of organizational happiness. *OPUS International Journal of Society Researches*, 17(37): 3976-3998. <https://doi.org/10.26466/opus.877220>
- Fallatah F, Laschinger HK, and Read EA (2017). The effects of authentic leadership, organizational identification, and occupational coping self-efficacy on new graduate nurses' job turnover intentions in Canada. *Nursing Outlook*, 65(2): 172-183. <https://doi.org/10.1016/j.outlook.2016.11.020> **PMid:28126250**
- Fateh A, Mustamil N, and Shahzad F (2021). Role of authentic leadership and personal mastery in predicting employee creative behavior: A self-determination perspective. *Frontiers of Business Research in China*, 15: 1-16. <https://doi.org/10.1186/s11782-021-00100-1>
- Fathi J and Derakhshan A (2019). Teacher self-efficacy and emotional regulation as predictors of teaching stress: An investigation of Iranian English language teachers. *Teaching English Language*, 13(2): 117-143.
- Fawaz M, Anshasi H, and Samaha A (2020). Nurses at the front line of COVID-19: Roles, responsibilities, risks, and rights. *The American Journal of Tropical Medicine and Hygiene*, 103(4): 1341-1342. <https://doi.org/10.4269/ajtmh.20-0650> **PMid:32783796** **PMCID:PMC7543802**
- Gibbs Z (2022). Linking nurses' job embeddedness and self-efficacy to locus of control. *OJIN: The Online Journal of Issues in Nursing*, 27(3). <https://doi.org/10.3912/OJIN.Vol27No03PPT14>
- Gill C and Caza A (2018). An investigation of authentic leadership's individual and group influences on follower responses. *Journal of Management*, 44(2): 530-554. <https://doi.org/10.1177/0149206314566461>
- Hirst G, Walumbwa F, Aryee S, Butarbutar I, and Chen CJH (2016). A multi-level investigation of authentic leadership as an antecedent of helping behavior. *Journal of Business Ethics*, 139: 485-499. <https://doi.org/10.1007/s10551-015-2580-x>
- Hu Y, Wu X, Zong Z, Xiao Y, Maguire P, Qu F, Wei J, and Wang D (2018). Authentic leadership and proactive behavior: The role of psychological capital and compassion at work. *Frontiers in Psychology*, 9: 2470. <https://doi.org/10.3389/fpsyg.2018.02470> **PMid:30618919** **PMCID:PMC6304388**
- Hussain M, Akhtar S, Inayatullah MA, and Gillani SA (2017). Impact of leadership styles on work related stress among nurses. *Saudi Journal of Medical and Pharmaceutical Sciences*, 3(8): 907-916.
- Jaworski M, Panczyk M, Leńczuk-Gruba A, Nowacka A, and Gotlib J (2022). The trend of authentic leadership skills in nursing education: The key role of perfectionism and self-efficacy. *International Journal of Environmental Research and Public Health*, 19(4): 1989. <https://doi.org/10.3390/ijerph19041989> **PMid:35206180** **PMCID:PMC8872341**
- Kalil SIM, Abd-Elrhaman ESA, and Sliman WMM (2019). Relationship among nurses' locus of control, work motivation factors, and their organizational commitment. *American Journal of Nursing Research*, 7(2): 167-178.
- Koçak K and Ohsan GENÇ (2022). The mediating role of organizational commitment in the effect of school administrators' servant leadership behavior on teacher motivation. *Research on Education and Psychology*, 6(2): 118-131. <https://doi.org/10.54535/rep.1124226>
- Laschinger HKS, Wong CA, and Grau AL (2013). Authentic leadership, empowerment and burnout: a comparison in new graduates and experienced nurses. *Journal of Nursing Management*, 21(3): 541-552. <https://doi.org/10.1111/j.1365-2834.2012.01375.x> **PMid:23405976**
- Liang S, Chang Y, Dong X, and Wang J (2019). Perceived uniqueness: Locus of control, social exclusion, and choice. *Social Behavior and Personality: An International Journal*, 47(11): 1-7. <https://doi.org/10.2224/sbp.8066>
- Macsinga I and Nemeti I (2012). The relation between explanatory style, locus of control and self-esteem in a sample of university students. *Procedia-Social and Behavioral Sciences*, 33: 25-29. <https://doi.org/10.1016/j.sbspro.2012.01.076>
- Maine L (2020). Influence of parenting styles on risk-taking behaviour among first year adolescent students on the Mafikeng campus of the North-West University. Ph.D. Dissertation, North-West University, Potchefstroom, South Africa.
- Mawson JA, Miller PK, and Booth L (2022). Stress, a reflective self and an internal locus of control: On the everyday clinical placement experiences of older undergraduate radiographers in the UK. *Radiography*, 28(1): 55-60. <https://doi.org/10.1016/j.radi.2021.07.019> **PMid:34391654**
- McPherson K, Barnard JG, Tenney M, Holliman BD, Morrison K, Kneeland P, Lin CT, and Moss M (2022). Burnout and the role of authentic leadership in academic medicine. *BMC Health Services Research*, 22(1): 1-9.

- <https://doi.org/10.1186/s12913-022-08034-x>
PMid:35546236 PMCID:PMC9092784
- Milam LA, Cohen GL, Mueller C, and Salles A (2019). The relationship between self-efficacy and well-being among surgical residents. *Journal of Surgical Education*, 76(2): 321-328.
<https://doi.org/10.1016/j.jsurg.2018.07.028>
PMid:30245061 PMCID:PMC6380924
- Musinguzi C, Namale L, Rutebemberwa E, Dahal A, Nahirya-Ntege P, and Kekitiinwa A (2018). The relationship between leadership style and health worker motivation, job satisfaction and teamwork in Uganda. *Journal of Healthcare Leadership*, 10: 21-32.
<https://doi.org/10.2147/JHL.S147885>
PMid:29719425 PMCID:PMC5922238
- Northouse PG (2010). *Leadership: Theory and practice*. 5th Edition, SAGE Publications, Thousand Oaks, USA.
- Pasay-an E (2020). Exploring the vulnerability of frontline nurses to COVID-19 and its impact on perceived stress. *Journal of Taibah University Medical Sciences*, 15(5): 404-409.
<https://doi.org/10.1016/j.jtumed.2020.07.003>
PMid:32837507 PMCID:PMC7391952
- Pasay-an E and Alsrouh HH (2022). Prioritizing training needs for nurses in the government hospitals of the Ha'il region, Saudi Arabia: Future directions for educational developers. *Makara Journal Health Research*, 26(2): 104-110.
<https://doi.org/10.7454/msk.v26i2.1365>
- Roh YS, Lee WS, Chung HS, and Park YM (2013). The effects of simulation-based resuscitation training on nurses' self-efficacy and satisfaction. *Nurse Education Today*, 33(2): 123-128.
<https://doi.org/10.1016/j.nedt.2011.11.008> **PMid:22153054**
- Rotter JB (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1): 1-28.
<https://doi.org/10.1037/h0092976> **PMid:5340840**
- Sabbah IM, Ibrahim TT, Khamis RH, Bakhour HAM, Sabbah SM, Droubi NS, and Sabbah HM (2020). The association of leadership styles and nurses well-being: a cross-sectional study in healthcare settings. *Pan African Medical Journal*, 36(328).
<https://doi.org/10.11604/pamj.2020.36.328.19720>
PMid:33193982 PMCID:PMC7603809
- Saleh U, O'Connor T, Al-Subhi H, Alkattan R, Al-Harbi S, and Patton D (2018). The impact of nurse managers' leadership styles on ward staff. *British Journal of Nursing*, 27(4): 197-203.
<https://doi.org/10.12968/bjon.2018.27.4.197>
PMid:29457941
- Schwarzer R and Jerusalem M (1995). Generalized self-efficacy scale. In: Weinman J, Wright S, and Johnston M (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs*: 35-37. NFER-Nelson, Windsor, UK.
<https://doi.org/10.1037/t00393-000>
- Shirey MR (2017). Leadership practices for healthy work environments. *Nursing Management*, 48(5): 42-50.
<https://doi.org/10.1097/01.NUMA.0000515796.79720.e6>
PMid:28448288
- Shorey S and Lopez V (2021). Self-efficacy in a nursing context. In: Shorey S and Lopez V (Eds.), *Health promotion in health care-Vital theories and research*: 145-158. Springer, Berlin, Germany.
https://doi.org/10.1007/978-3-030-63135-2_12
PMid:36315720
- Snowden A, Stenhouse R, Duers L, Marshall S, Carver F, Brown N, and Young J (2018). The relationship between emotional intelligence, previous caring experience and successful completion of a pre-registration nursing/midwifery degree. *Journal of Advanced Nursing*, 74(2): 433-442.
<https://doi.org/10.1111/jan.13455> **PMid:28910494**
- Tibbs S, Green MT, Gergen E, and Montoya JA (2016). If you are like me, I think you are more authentic: An analysis of the interaction of follower and leader gender. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 6(1): 118-133. <https://doi.org/10.5929/2016.6.1.8>
- Wei H, King A, Jiang Y, Sewell KA, and Lake DM (2020). The impact of nurse leadership styles on nurse burnout: A systematic literature review. *Nurse Leader*, 18(5): 439-450.
<https://doi.org/10.1016/j.mnl.2020.04.002>
- Wolinsky FD, Vander Weg MW, Martin R, Unverzagt FW, Willis SL, Marsiske M, Rebok GW, Morris JN, Ball KK, and Tennstedt SL (2010). Does cognitive training improve internal locus of control among older adults? *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 65(5): 591-598.
<https://doi.org/10.1093/geronb/gbp117>
PMid:20008028 PMCID:PMC2920943
- Wong CA and Cummings GG (2009). The influence of authentic leadership behaviors on trust and work outcomes of health care staff. *Journal of Leadership Studies*, 3(2): 6-23.
<https://doi.org/10.1002/jls.20104>