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## THE RELATIONSHIP BETWEEN THE AUTHENTIC LEADERSHIP AND THE NURSES' INNOVATIVE BEHAVIOR IN HEALTHCARE ORGANIZATIONS

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### ABSTRACT

**Background:** Authentic leadership is a relational style that is to nurture a flaring work atmosphere and affect the employee's enactment and outcomes while innovative work conduct is highly proven to support the operational maturity and its competitive advantages. **Aim of the Study:** was to examine the relationship between authentic leadership as perceived by nurses and the nurses' innovative behavior in healthcare. **Subjects and Methods:** **Design:** Descriptive correlational research design. **Setting:** Damietta city hospitals which are affiliated to the Ministry of Health and Population, Egypt. **Subjects:** nurses working in the previously mentioned setting with a total number 323 nurses working in all departments. **Tools:** The study data were collected using The Authentic Nurse Leader Questionnaire -Staff Leader Evaluation and The Innovative Work Behavior Scale. **Results:** About 42.7% of the studied nurses assumed their nurse leaders were highly authentic. Nevertheless, 41.5% of nurses demonstrated a lower level of innovation behavior in their practice. Finally, statistically significant positive correlations between all authentic leadership domains and all innovative behavior domains (p 0.00). **Conclusion:** It was concluded that there is a two-thirds of the studied nurses perceived their leaders as having authentic leadership skills. Furthermore, a minority of the nurses studied exhibited high levels of innovative behavior, while less than half exhibited low levels of innovative behavior. **Recommendation:** Nurse Managers should have the ability to adopt authentic leadership behaviors and should engage other staff nurses' opinions in the decision-making process, which may create new ideas.

**Keywords:** Authentic leadership, Healthcare organizations, Innovative behavior

## **INTRODUCTION**

Following the modern based nursing management, nurse leaders should custom verbal inducement in order to effectively increase nurses' trust and reliance that nurture evolving of the leadership potentials through authenticity (Labrague, Al Sabei, Al Rawajfah, Abu Al Rub, & Burney,2021). Authentic leadership is viewed as a root construct which lies upstream of other positive forms of leadership. At its underpinning, the meaning of reliable leadership put a focus on what is effective and be likely to be more consistent with how nurses often drive their jobs (Nurius & Kemp, 2019).

When challenges are facing the healthcare settings such as the constantly changing health system, an increased regulatory requirement, constrained human and financial resources, an amplified patient loyalty, an improved staff retention and an increased nursing innovation, the authentic leadership at the executive nursing level has a critical impact, and is highly required (Bailey, 2019). Although some have allied nurses' satisfaction to a higher retention rates and better patient outcomes, others have shown a stronger correlation between registered nurses' satisfaction and the level of creativity. Alexander and Lopez (2018) stated that authentic leadership is critical for improving patient protection, security and well-being as well as nurse staffing, retention, protection and security.

Zeb, Abdullah, Hussain and Safi (2019) mentioned that four elements of authentic leadership which are self-awareness, competence, knowledge of one's own strengths and weaknesses and relational transparency. Looking more deeply, this given style of leadership is composed of internalized moral perspective and also balance processing that are thought in a high standard of moral quality and appropriate information analysis before making decisions and their impact on societal difficulties.

Laban and Deya (2019) defined innovation as a new method, new practice device, or an idea that is supposed as new by an individual or other unit of adoption. Some scholars have qualified innovative behavior as creating new ideas that are beneficial; those ideas must be actively communicated and initiated to evolve into innovation (Lee & Kim, 2021). Innovative work behavior can be stimulated by the four factors: compensation system, second, training and development, information sharing and supportive supervision. Many other collateral factors such as employee characteristics, needs for affiliation, mimicry and social approval, a supportive work environment, relational self-perception, and sensitivity to

supervisory expectations can all have a power on innovative work performance Bos-Nehles and Veenendaal, (2019) ; Yamak and Eyupoglu (2021) claimed that authentic leadership may have a favorable and affirmative influence on nurses' innovation.

### ***Significance of the Study:***

Several studies have demonstrated the importance of authentic leadership in the nursing field and others intensified the innovative behavior; Alilyyani, Wong, and Cummings (2018) established the trustworthy management predicted the job satisfaction, and authentic leadership style motivates employees and fosters creative problem-solving. Authentic leadership has a significant impact and influence on innovative workplace practices (Lei, Qin, Ali, Freeman, & Shi-Jie, 2021).

The present study sought to link the authentic leadership style that can be very relevant in terms of encouraging employees 'positive attitudes and behaviors to the effective innovative work behavior since the healthcare facilities currently requisite creative employees to survive and thrive facing the stormy and challenging times. Therefore, the current study aimed to examine the relationship between the authentic leadership as perceived by nurses and nurses' innovative behavior in some selected Damietta city hospitals as a representative to an Egyptian healthcare facility.

### **AIM OF THE STUDY**

Examine the relationship between authentic leadership as perceived by nurses and nurses' innovative behavior in healthcare organizations.

### **Research Objectives:**

- 1- Identify the head nurse's authentic leadership from the nurses' point of view.
- 2- Assess the nurses' innovative behavior level in healthcare organizations .
- 3- Explore the relationship between authentic leadership, innovative behavior, and the personal and work-related data of the studied nurses.
- 4- Detect the correlation between the authentic leadership and innovation behaviors in healthcare organizations.

### **SUBJECT AND METHOD**

**Research design:**

A descriptive correlational research design was utilized.

**Settings:**

The study was carried out at all departments located in six hospitals affiliated to the Ministry of Health and Population in Damietta city, Egypt as follows:

- 1- Damietta General Hospital
- 2- Damietta Specialized Hospital (Al Aasar)
- 3- Chest Diseases Hospital
- 4- Tropical Diseases Hospital
- 5- Dermatology Hospital
- 6- Ophthalmology Hospital.

**Subjects:**

The target population of this study was nurses working in the previously mentioned setting with 323 nurses .

**Sample size:**

A total number of 323 out of 1200 staff nurses working at the previously mentioned settings were selected based on the following sampling size and technique:

The sample size was determined using a Free Internet Open-Source Software (i.e.openepi.com) developed by **(Dean, Sullivan &Soe, 2013)** which determined the number of nurses that should be enrolled in the current study based on:

Sample size:

$$n = \frac{DEFF * N * p(1-p)}{[(d2/Z21-\alpha/2*(N-1)+p*(1-p)](N=1200)=323 \text{ nurses}}$$

where the number of nurses selected from each hospital was specified according to the following equation:

The number of nurses taken from each hospital

$$= \frac{\text{Total number of staff in hospital} * \text{total sample size}}{\text{Total number of nursing staff in the six hospitals included}}$$

Nurses were chosen from all departments of all hospitals according to a systematic random sampling technique; all nurses in each hospital are ranked alphabetically, then the total number of nurses in the hospital was divided by the estimated sample size. The sample element was chosen every 2<sup>nd</sup>one.

**Tools of data collection:**

Data collection tools were as follows:

**Tool (I): The Authentic Nurse Leader Questionnaire - Staff Leader Evaluation:**

It was adopted from Barbosa (2018) which aimed to assess the authentic nurse leader's attributes as perceived by staff nurses and included questions about nurses' the personal and job-related data such as level of nursing education, work department, years of experience year, any training programs in study they attended, gender, age, and social status. Further, the Authentic Nurse Leader Questionnaire-Staff Leader Evaluation which consisted of four authentic leadership attributes subcategorized with 16 items and classified as the following: relational transparency (RT) five items, moral ethical (ME) four items, balanced processing (BP) three items and self-awareness (SA) four items.

Responses for each item were rated on a five-point Likert scale ranging from one = not at all, two = Once in a while, three = Sometimes, four = Fairly often, to five = Frequently. The total score of the authentic leadership was interpreted based on the following levels of nurses' perception:

- Very high perception level (80% - ≤100%)
- High perception level (60% - < 80%)
- Low perception level (40%: < 60%)
- Very low perception level (20%: < 40%)

**Tool (II): The Innovative Work Behavior Scale:**

This scale was developed by Lambriex-Schmitz, Van der Klink, Beusaert, Bijker, and Segers (2020) for measuring the nurses' innovative work behavior in healthcare organizations. It was translated to Arabic with adding some minimal modifications. It was composed of 44 items subcategorized under five dimensions such as opportunity exploration four items, idea generation seven items, idea promotion seven items, idea realization (criterion-based implementation and learning-based communication) nine items, and idea sustainability (internal embedding and external dissemination) 17 items).

According to Lambriex- Schmitz et al. (2020) Responses for each item were rated on a six-point Likert-scale, ranging from one = strongly disagree, two= disagree, three= neither agree nor disagree, four =agree, five =mostly agree, six = strongly agree. The total score of the innovative work behavior was deduced based on the following nurses' innovation levels:

- Less than 65% is a low level of innovative work behavior.
- From 65 to < 75% is a moderate level of innovative work behavior,
- More than or equal 75% for is a high level of innovative work behavior.

**Data Collection Tools Validity:**

The two tools were translated to Arabic by the investigator and retranslated to English again where they were submitted and revised by a jury committee composed of five experts in the field of nursing administration for testing the clarity, relevance, applicability, understanding and easiness to collect the data by the current tool.

**Data Collection Tools Reliability:**

Cronbach's alpha coefficient was calculated to assess the reliability of the tool through assessing each dimension internal consistency. The tool showed good reliability with high Cronbach's alpha coefficient (0.91 and 0.89) for The Authentic Nurse Leader Questionnaire and The Innovative Work Behavior Scale respectively.

**Pilot study:**

A Pilot study was carried out on randomly selected (10%) of the total number of staff nurses which equals (32) nurses who were excluded from the rest of the study after all in order to assure the applicability, feasibility, objectivity of the data collection tool and also to estimate the needed time to fill the tools' sheets. The data obtained from the pilot study were analyzed and necessary modifications were done accordingly. Further, the time spent for completion of one single sheet was about 15 -20 minutes.

**Administrative Design to Conduct the Study:**

An official letter was taken from the Dean, and the Vice Dean of Post-Graduate Studies and Researches, faculty of nursing, Port Said University directed to the nursing directors of the 6 selected hospitals to ensure their cooperation and obtain their permission after explanation of the purpose of study.

**Ethical Considerations:**

An ethical approval was obtained from the research ethics committee of the faculty of nursing, Port-Said University (ID 24: initial approval on 14<sup>th</sup> December 2020 and the final approval on 1<sup>st</sup>February 2021) in order to ensure obtaining the informed consent from every single participant; the informed consent was to assure the confidentiality and anonymity of data and participation was voluntary where they have the right of withdrawal at any time. Furthermore, the study results would be used as a component of the necessary research paper as well as for the future publication and nursing sector benefits.

**Field Work:**

Data were collected from the nurses after explaining the aim of the study and getting their acceptance to participate in the current study; the questionnaire sheets were filled by the enrolled nurses and handed back to the investigator upon their completion. Overall, the data collection process was conducted in almost 2 months and half from the middle of December 2020 till the end of February 2021.

**Statistical Design:**

Data were coded, tabulated, and transformed by the investigator into a specially designed format in order to be suitable for computer feeding. Then the data were analyzed using the (statistical package for social science, SPSS) computer program .

Data were presented using descriptive statistics in the form of frequency and percentages, means and standard deviations. Categorical variables relationship and differences were analyzed using the t-test, Chi-square, Pearson Correlation Coefficient, correlation where the statistical significance was considered at P value  $\leq 0.05$  for all statistical methods used.

**RESULTS**

**Table (1):** represents the nurses' personal and job-related data where over a half of them (52.6%) aged between 20 years to less than 30 years old with a mean age ( $32.148 \pm 7.582$ ). Most of them (94.1%) were females and less than half of them (46.7 %) had a diploma degree in nursing, (52%) of them had from 5 to 15 years of experience, 84.6% of them were married. Regarding their work area, 48.6% of the studied staff nurses worked in non-critical. Lastly, a very tiny percent of them (1.5%) attended authentic leadership related courses and 1.9% attended an innovative behavior related course.

**Table (2):** exhibits the levels of authentic leadership behavior of nurse leaders as perceived by studied staff nurses where the transparency domain hit the highest mean score ( $12.145 \pm 3.143$ ) followed by the moral ethical domain ( $9.727 \pm 2.702$ ), the self-awareness domain ( $9.322 \pm 2.768$ ), while the balanced processing was the lowest between the other domains ( $6.950 \pm 2.112$ ). Moreover, 42.7% of nurses assumed a high level of perception toward nurse leaders who had an authentic leadership behavior specifically, 43.1, 42.7%, 42.4% and 41.8% assumed a high level of perception toward nurse leaders who had transparency, balanced processing, moral ethical and self-awareness behavior respectively toward them.

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**Table (3):** reveals a statistically significant differences between the nurses' perception of their nurse leaders' authentic leadership and their personal and work-related data where having less than five years of nursing experience, working in administrative departments, and attending an innovative behavior related courses hit the highest mean scores ( $40.547 \pm 8.480$ ,  $41.722 \pm 9.657$  and  $48.000 \pm 6.270$ , respectively).

**Table (4):** displays the levels of the nurses' levels of innovative behavior where the idea sustainability domain registered the highest mean score ( $35.052 \pm 10.55$ ), followed by the idea realization domain ( $23.473 \pm 4.82$ ), the idea generation domain ( $19.123 \pm 3.13$ ) and the idea promotion domain ( $18.984 \pm 3.25$ ) while the opportunity exploration was the lowest between the other domains ( $11.071 \pm 1.69$ ). Additionally, 28.8% of the studied nurses had a high level of innovative behavior whereas (41.5%) of them claimed a low innovative behavior level.

**Table (5):** shows a statistically significant differences between the nurses' innovative behavior levels and so their personal and work-related data where being more than 40 years old, having post-graduate educational level, having less than five years of nursing experience and working in administrative departments hit the highest mean scores ( $113.246 \pm 15.123$ ,  $123.000 \pm 12.727$ ,  $111.285 \pm 18.195$  and  $121.055 \pm 11.455$ , respectively).

**Tables (6 & 7):** illustrate the statistical significance positive correlation between all the perceived authentic leadership domains and all innovative behavior domains among the studied staff nurses. To conclude, there was a positive statistically significant correlation between the authentic leadership and innovative behavior among staff nurses.



**Table(1):** The personal and job-related data of the studied nurses (n=323):

<b>Socio-demographic characteristics</b>	<b>N</b>	<b>%</b>
<b>Age (year)</b>		
< 20 years	1	0.3
20 to < 30 years	170	52.6
30 to < 40 years	83	25.7
≥ 40 years	69	21.4
Mean age ± SD	32.148 ± 7.582	
<b>Gender</b>		
Male	19	5.9
Female	304	94.1
<b>Level of Nursing Education</b>		
Diploma	151	46.7
Associated degree	130	40.3
Bachelor	40	12.4
Post graduate degree	2	0.6
<b>Years of Nursing Experience</b>		
< 5 years	42	13
5 to 15 years	168	52
> 15 years	113	35
<b>Social Status</b>		
Single	23	7.1
Married	273	84.6
Widowed	15	4.6
Divorced	12	3.7
<b>Work Area</b>		
Critical units	148	45.8
Noncritical units	157	48.6
Administrative departments	18	5.6
<b>Attendance of Authentic leadership related courses</b>		
Yes	5	1.5
No	318	98.5
<b>Attendance of Innovative behavior related courses</b>		
Yes	6	1.9
No	317	98.1

**Table (2):** The levels of authentic leadership behavior of nurse leaders as perceived by studied nurses (n=323):

Domains	Very low (20% - < 40%)		Low (40% - < 60%)		High (60% - < 80%)		Very high (80% - ≤100%)		Mean ± SD
	No	%	No	%	No	%	No	%	
Transparency	23	7.1	66	20.4	139	43.1	95	29.4	12.145 ± 3.143
Moral ethical	32	9.9	64	19.8	137	42.4	90	27.9	9.727 ± 2.702
Balanced processing	42	13	81	25.1	138	42.7	62	19.2	6.950 ± 2.112
Self-awareness	41	12.7	75	23.2	135	41.8	72	22.3	9.322 ± 2.768
Total authentic leadership	23	7.1	70	21.7	138	42.7	92	28.5	38.145 ± 9.952

**Table (3):** Relationship between the nurses' total perception of their nurse leaders' authentic leadership and their personal and work-related data (n=323):

Items	Very low		Low		High		Very high		Mean ± SD	Sig.
	No	%	No	%	No	%	No	%		
<b>Age (years)</b>										
< 20 years	0	.0	0	.0	0	.0	1	0.3	43.000	X <sup>2</sup> =6.117 p=0.090
20 to < 30 years	13	4	33	10.2	80	24.8	44	13.6	37.888 ± 9.931	
30 to < 40 years	7	2.2	25	7.7	33	10.2	18	18	36.241 ± 10.641	
≥ 40 years	3	.9	12	3.7	25	7.7	29	29	41.000 ± 8.607	
<b>Gender</b>										
Male	1	.3	1	.3	13	4	4	1.2	41.157 ± 9.400	X <sup>2</sup> =6.117 p=0.106
Female	22	6.8	69	21.4	125	38.7	88	27.2	37.957 ± 9.970	
<b>Level of Nursing Education</b>										
Diploma	13	4	34	10.5	59	18.3	45	13.9	38.039 ± 10.407	X <sup>2</sup> =10.355 p=0.323
Associated degree	6	1.9	28	8.7	66	20.4	30	9.3	37.976 ± 9.314	
Bachelor	4	1.2	8	2.5	12	3.7	16	5	38.920 ± 10.509	
Post graduate degree	0	.0	0	.0	1	.3	1	.3	41.000 ± 9.952	
<b>Years of Nursing Experience</b>										
< 5 years	2	.6	3	.9	20	6.2	17	5.3	40.547 ± 8.480	X <sup>2</sup> =13.360 p=0.038*
5 to 15 years	15	4.6	44	13.6	72	22.3	37	11.5	36.440 ± 10.580	
> 15 years	6	1.9	23	7.1	46	14.2	38	11.8	39.787 ± 9.069	
<b>Social Status</b>										
Single	1	.3	5	1.55	10	3.1	7	2.2	39.434 ± 8.435	X <sup>2</sup> =12.192 p=0.203
Married	22	6.8	59	18.3	119	36.8	73	22.6	37.721 ± 10.110	
Widowed	0	.0	4	1.2	2	.6	9	2.8	42.466 ± 8.935	
Divorced	0	.0	2	.6	7	2.2	3	.9	39.916 ± 9.538	
<b>Work Area</b>										
Critical units	13	4	38	11.8	76	23.5	21	6.5	35.858 ± 9.915	X <sup>2</sup> =29.860 p=0.000**
Non critical units	9	2.8	29	9	58	18	61	18.9	39.891 ± 9.598	
Administrative departments	1	.3	3	.9	4	1.2	10	3.1	41.722 ± 9.657	
<b>Attendance of Authentic leadership related courses</b>										
Yes	0	.0	0	0	2	6	3	.9	45.200 ± 6.260	X <sup>2</sup> =3.242 p=0.356
No	23	7.1	70	21.7	136	42.1	89	27.6	38.034 ± 9.965	
<b>Attendance of Innovative behavior related courses</b>										
Yes	0	.0	0	.0	1	3	5	1.5	48.000 ± 6.270	X <sup>2</sup> =9.189 p=0.027*
No	23	7.1	70	21.7	137	42.4	87	26.9	37.959 ± 9.952	

\*significant at P ≤0.05

**Table (4):** The levels of nurses' innovative behavior (n=323):

Domains	Low level (< 65%)		Moderate level (65 - < 75%)		High level (≥75%)		Mean ± SD
	No	%	No	%	No	%	
Opportunity exploration	95	29.4	121	37.5	107	33.1	11.071 ± 1.69
Idea generation	106	32.8	96	29.7	121	37.5	19.123 ± 3.13
Idea promotion	109	33.7	85	26.4	129	39.9	18.984 ± 3.25
Idea realization	139	43	85	26.3	99	30.7	23.473 ± 4.82
Idea sustainability	149	46.1	102	31.6	72	22.3	35.052 ± 10.55
Total innovative behavior	134	41.5	96	29.7	93	28.8	107.705 ± 19.46

**Table (5):** The relationship between the nurses' total innovative behavior levels and so their personal and work-related data (n=323):

Items	Low		Moderate		High		Mean ± SD	Sig.
	No	%	No	%	No	%		
<b>Age (years)</b>								
< 20 years	1	.3	.0	.0	0	.0	67	X <sup>2</sup> =15.327 p=0.018*
20 to < 30 years	79	24.5	48	14.9	43	13.3	107.000 ± 21.238	
30 to < 40 years	38	11.8	25	7.7	20	6.2	105.036 ± 17.699	
≥ 40 years	16	5	23	7.1	30	9.3	113.246 ± 15.123	
<b>Gender</b>								
Male	5	1.5	7	2.2	7	2.2	108.210 ± 14.401	X <sup>2</sup> =1.919 p=0.383
Female	129	39.9	89	27.6	86	26.6	107.674 ± 19.749	
<b>Level of Nursing Education</b>								
Diploma	61	18.9	46	14.2	44	13.6	106.629 ± 18.222	X <sup>2</sup> =16.477 p=0.011*
Associated degree	63	19.5	39	12.1	28	8.7	107.438 ± 20.629	
Bachelor	10	3.1	11	3.4	19	5.9	111.875 ± 20.069	
Post graduate degree	0	.0	0	.0	2	.6	123.000 ± 12.727	
<b>Years of Nursing Experience</b>								
< 5 years	17	5.3	9	2.8	16	5	111.285 ± 18.195	X <sup>2</sup> =15.603 p=0.004*
5 to 15 years	84	2.6	48	14.9	36	11.1	104.934 ± 21.857	
> 15 years	33	10.2	39	12.1	41	12.7	110.495 ± 15.194	
<b>Social Status</b>								
Single	6	1.9	7	2.2	10	3.1	108.173 ± 22.760	X <sup>2</sup> =5.975 p=0.426
Married	120	37.2	78	24.1	75	23.2	107.432 ± 19.174	
Widowed	5	1.5	6	1.9	4	1.2	106.466 ± 23.347	
Divorced	3	.9	5	1.5	4	1.2	114.583 ± 14.374	
<b>Work Area</b>								
Critical units	76	23.5	40	12.4	32	9.9	105.047 ± 20.794	X <sup>2</sup> =34.956 p=0.000**
Non critical units	57	17.6	54	16.7	46	14.2	108.681 ± 18.208	
Administrative departments	1	.3	2	.6	15	4.6	121.055 ± 11.455	
<b>Attendance of Innovative behavior related courses</b>								
Yes	0	.0	3	.9	3	9	127.666 ± 7.420	X <sup>2</sup> =4.337 p=0.114
No	134	41.5	93	28.8	90	27.9	107.328 ± 19.423	

\*significant at P ≤0.05

**Table(6):** Correlation between the perceived authentic leadership domains and innovative behavior domains among the studied nurses:

	Moral ethical	Balanced processing	Self-awareness	Opportunity Exploration	Idea generation	Idea promotion	Idea realization	Idea sustainability
Transparency	.813	.764	.738	.304	.240	.338	.277	.376
	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**
Moral ethical		.821	.830	.409	.370	.423	.364	.470
		0.000**	0.000**	0.000**	0.000**	0.000**	0.000**	0.000**
Balanced processing			.835	.352	.272	.371	.317	.384
			0.000**	0.000**	0.000**	0.000**	0.000**	0.000**
Self-awareness				.346	.288	.321	.382	.458
				0.000**	0.000**	0.000**	0.000**	0.000**
Opportunity exploration					.798	.762	.670	.669
					0.000**	0.000**	0.000**	0.000**
Idea generation						.805	.761	.714
						0.000**	0.000**	0.000**
Idea promotion							.652	.701
							0.000**	0.000**
Idea realization								.857
								0.000**

**Table (7):**The correlation between the total score of the perceived authentic leadership and the innovative behavior among participated nurses

Study variables	Innovative behavior
Authentic leadership	.443
	0.000**

\* Person correlation test, Significance considered if  $p < 0.05$

## DISCUSSION

This study attempted to examine the relationship between the authentic leadership as perceived by nurses and nurses' innovative behavior in some selected Damietta city hospitals as a representative to an Egyptian healthcare facility.

To begin with, about the authentic nursing leaders' behavior, the current study findings revealed that most nurses perceived their nurse leaders were being transparent with them.

Shapira-Lishchinsky, and Benoliel (2019) mentioned in a similar aimed study that the head nurse admitted when he/she was wrong that indicates relational transparency refers to the degree to which leaders cultivate openness with their juniors.

The second perceived high domain related to their authentic nurse leaders was the moral-ethical; Keselman and Saxe-Braithwaite (2021) who studied the leadership ethics, mentioned leaders should have primarily concerned principles, standards, ethics, values, and norms with other organizations members. When ethical leaders follow that they will be fair in their relations with others where ethical leaders are those moral leaders and friends who walk to speak in all their deeds.

The third perceived high domain concerning their authentic nurse leaders was leaders 'self-awareness. this finding agreed with the clarification posted by SahraeiBeiranvand, Beiranvand, Beiranvand, and Mohammadipour (2021) stressed in their research that self-awareness is at the core of authentic leadership, leaders constantly make efforts to be authentic by excavating their thoughtfulness of their capacities, abilities, and interpersonal inspiration. in addition, not only the reliable management focuses significantly on leader relational transparency, but it also takes into account the personal and social identification as steps through which a leader's behavior prompts a comparable attention on self-awareness in followers (Murphy & Louis, 2018).

Additionally, the study result was consistent with the explanation made by Ribeiro, Gomes and Kurian (2018) who explained that managers' self-awareness allows receiving feedback from their superiors, colleagues and followers. In contrast, Puni and Hilton (2020) indicated that nursing leaders lack the self-awareness required to understand their unique talents, strengths, sense of purpose, fundamental values, beliefs, and desires on a consistent basis.

Fourthly, the balance processing domain of authentic leadership hit a high percentage of nurses' perception which was highly accentuated in Labrague et al. (2021)'s study which declared the balance processing domain creates a safety climate within the organization and fosters inter-professional collaboration between health care teams whereby nurses' safety behaviors are fostered.

To end with, the current study results clarified that most of the studied nurses highly viewed their leaders as authentic leaders; this was congruent with the result of Lee, Chiang,

and Kuo (2019) which disclosed nurses believed their head nurses to be regularly applying authentic leadership. The authentic leader could generate a positive work environment and work climate which helped to improve employee's work-life, minimize burnout, and increase the quality of healthcare.

A statistical relationship was discovered between the perceived authentic leadership and staff nurses 'years of experience, departments of work, and attending innovative behavior courses. According to Mondillo (2020) an analysis of the correlations of age, experience years, and total number of experience years in leadership and/or management found a significant statistical relation with managers' authentic leadership. Further, gender, age, and years of experience in the current position were significant for explaining variation in authentic leadership (Alshammari, Pasay-An, Gonzales, & Torres, 2020).

Shifting to the nurses' innovative work behavior, the idea sustainability domain recorded the highest mean score among other domains; Tang, Shao, and Chen (2019) claimed that innovation helps organizations operate sustainably while also boosting their competitiveness. Innovation is crucial not only for research and development departments, but for all departments as well. Employees are the subjects of innovation and knowledge. To effectively improve organizational knowledge and foster employees' innovative behavior, businesses should take into account ways to encourage and support this manner sustainably.

Moreover, idea realization domain was claimed a high level among studied nurses' innovative performance; Woods, James, Anderson, and Sayer (2018) alleged that idea recognition may draw on competencies and skills such as political skill to get ideas support as those who are in control of the new knowledge, their level of innovative behavior in relation to idea realization may actually be higher than that of those without domination.

Concerning the level of idea generation domain in the work innovation, the results established that studied nurses assumed a lower level comparing other domains. This finding was opposite to what (Pype, Mertens, Helewaut, & Krystallidou, 2018) indicated as most people at work acknowledge each other's expertise and allow them to show others their views on patient problems within their expertise region or ask for advice from other team members in cases of indecisiveness without the willingness to assume the risk for generate ideas from own selves.

Likewise, in to the idea promotion domain, staff nurses thought a lower level about innovation whereon one hand, Planas\_Campm any, Zabaleta\_del\_Olmo, Violán, Pérez\_Sánchez, and Navas\_Palacios (2020) clarified that the idea promotion domain was not achieved as a predictor of innovation because most nurses with new thoughts did not participate their ideas despite the fact that there are multiple obstacles to health care innovation frontline, and new approaches are required to improve innovative workplace culture and an engaged leadership for gaining them. On the other hand, Afsar, Cheema, and Saeed (2018) hypothesized that variations in nurses' levels of innovative activity may be partially explained by their attitudes toward sharing knowledge with colleagues. These findings are essential because fostering innovative work practices among nurses is the best method to innovate where constant innovation assures sustained competitive advantage.

Regarding the opportunity exploration domain of innovation, the study results revealed a very low level among the staff nurses. Alilyyani, Wong, and Cummings (2018) pointed out that employee's given opportunity for seeking or developing new ways of work was lacked because the lack of positive environment and authentic leadership. To sum up, the existing study revealed that the minority of the studied nurses thought of themselves as an innovative worker. This result contrasted (Kamel & Aref, 2017 ; Mahgoub, Shazly, & El-sayed 2019)'s study results at Benha university and Beni-sueif university hospital, Egypt respectively who concluded that half of their enrolled staff nurses had a high innovative work behavior level.

A statistical relationship was revealed between the innovative behavior and staff nurses' age, the level of nursing educational, nursing years of experience and the work area. These findings were consistent with (Zappalà, Toscano, Polevaya, & Kamneva, 2021) who argued that nurses' innovative work behavior is complicated and multi-determined which influenced by individual, group and organizational factors. Similarly, Ekin and Gungormus (2018) mentioned that factors like age, gender, educational level, and professional standing, place of residence and wages frame significant demographic factors affecting the interest in groundbreaking performance.

As a final point, the current study findings exhibited a statistical positive relationship between the perception of having an authentic nurse leaders and accusation of an innovative conduct among the studied staff nurses which came in accordance with Mubarak and Noor (2018) who asserted that employees are more creative under authentic leaders because they realize much more engaged and empowered under their administration since the authentic

leader is proficient enough to keep his employees involved in their work by creating special ideas with them.

Mason (2019) concludes that employees who place a high value on realistic leadership are more likely to exhibit greater levels of self-confidence which encourages them to think and act by creative ways. The authentic leaders support an open and honest communication as well as employee autonomy, decision-making, and positivity. Authentic leaders foster their teams' inventive work practices by giving them a sense of self-sufficiency in the workplace (Bai,Wang, Alam,Gul, & Wang, 2022).

## CONCLUSION

It can be concluded that: Most of the studied staff nurses highly regarded their leaders as authentic leaders however the minority of them believed of themselves as innovative personnel. The current study findings exhibited a strong positive association between the perception of having an authentic nurse leaders and accusation of an innovative conduct among the studied nurses.

For additional findings, a statistical relationship was discovered between the perceived authentic leadership and nurses' years of experience, departments of work, and attending innovative behavior courses. Further, another statistical relationship was revealed between the innovative behavior and staff nurses' age, the level of nursing educational, nursing years of experience and the work area.

## RECOMMENDATION

Based upon the findings of current study, the following recommendations were suggested:

### Healthcare organizations:

- To improve nurses' perceptions of innovative work behavior, hospital administrators should implement systems, protocols, policies, and strategies for healthcare organizations' progress.
- Hospital administrators should make adequate financial and human resources available for the implementation of innovative work behaviors.

### Nurse Managers:

- Nurse Managers should exhibit genuine leadership behaviors.
- Nurse Managers should encourage nurses to think creatively.
- Nurse Managers should solicit feedback from their nurses to generate new ideas.



- A continuous educational program for nurse leaders should be implemented in- order to improve authentic leadership skills.
- Nurse Managers should empower staff to foster a productive work atmosphere that influences their innovative behavior. So, it can improve the organization's innovation performance.
- Meetings between nurses and nurse managers must be maintained and scheduled to discuss work problems and find actionable, innovative solutions and ideas that help increase an innovative work environment.

**Further research:**

- More research into the impact of authentic leadership may be required.
- More research into other predictors of nurses' innovative behaviors is advised.
- As different future results may emerge, this study may be applied to a large sample and different geographic areas in a stable future time after the end of the COVID-19 pandemic.

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## العلاقة بين القيادة الأصيلة والسلوك المبتكر للممرضات والممرضين في مؤسسات الرعاية الصحية

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### الخلاصة

القيادة الأصيلة هي أسلوب مرتبط ببناء العلاقات وتهدف إلى رعاية بيئة عمل باهرة كما تؤثر على أداء الموظف ونتاجه، بينما ثبت أن سلوك العمل المبتكر يدعم النضج التشغيلي والمزايا التنافسية لدى المؤسسة. تهدف هذه الدراسة الي دراسة العلاقة بين القيادة الأصيلة كما يراها الممرضات والممرضون والسلوك المبتكر لديهم في مؤسسات الرعاية الصحية. تم اتباع التصميم الوصفي الارتباطي لإجراء هذا البحث والذي شمل 323 ممرضة وممرض يعملون في جميع الأقسام في مستشفيات مدينة دمياط التابعة لوزارة الصحة والسكان ، مصر. تم جمع بيانات الدراسة باستخدام استبانة قائد التمريض الأصيل - تقييم قائد الموظفين ومقياس سلوك العمل المبتكر. أظهرت النتائج أن حوالي (42.7%) من التمريض الخاضع للدراسة رأوا أن قادة التمريض لديهم أصيلون بدرجة عالية. ومع ذلك ، أمتلك (41.5%) منهم مستوى منخفض من السلوك الابتكاري أثناء عملهم. أخيرًا ، يوجد ارتباط إيجابي ذو دلالة إحصائية بين جميع معايير القيادة الأصيلة وجميع معايير السلوك الابتكاري وانتهت الدراسة الي أنه يوجد علاقة إيجابية بين تصور وجود قادة تمريض أصيلون وامتلاك سلوك مبتكر بين الممرضات والممرضين في مختلف بيئات الرعاية الصحية المدروسة. وتوصي الدراسة بأنه يجب أن يكون لدى مديري التمريض الرغبة في فهم واعتماد سلوكيات القيادة الأصيلة ، ويجب عليهم إشراك آراء التمريض الآخرين في عملية صنع القرار والتي قد تخلق قواعد أفكار جديدة.

**الكلمات المرشدة:** قيادة أصيلة ، مؤسسات الرعاية الصحية ، سلوك مبتكر