Relationship between Toxic Leadership and Work Outcomes: A Cross-sectional Study

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Abstract

Background: Leadership has become an essential issue for health care organizations; leader is expected to be the role model of ethical behavior and protagonist of values for their nurses. Absence of ethical behaviors from leaders is known to be very costly for health settings. Toxic leadership behaviors have a negative impact that affect nurses work outcome. **Aim:** To investigate the relationship between toxic leadership as perceived by staff nurses and work outcomes. **Research design:** A cross-sectional quantitative research design. **Setting:** The study was carried out in all in-patient care units at Shoubrakhit General Hospital. **Subjects:** All target population of staff nurses (n=475) who were working in the previously mentioned settings for not less than six months and available during the time of data collection. **Tools: Tool I**: The Toxic Leadership Scale. **Tool II**: Work outcomes Scale. **Results:** There was a statistically significant negative correlation between nursing leaders' toxic leadership as perceived by studied nurses and overall work outcomes, where P =0.018. **Conclusion:** The study concluded that there was a statistically significant negative correlation between perceived toxic leadership and work outcomes. **Recommendations:** The health care organizations should establish leadership training programs and workshops to provide nursing leaders and supervisors with the leadership skills and practices that they need to perform their roles in effective manner to enhance work outcomes.

Keywords: Toxic leadership, Leaders, Work outcomes.

Introduction

The competitive landscape of current health care divisions demands the involvement of inspiring leaders to come across customer demands and expectations. In nursing, effective leadership is a core dimension of the management role, with substantial evidence showing its desirable outcomes in nurses, patients and their families, and the organization (**Zaghini et al., 2020; Fontes et al. 2019;**). Nurse leaders play a crucial role in empowering nurses to provide care quality through the provision of a positive work environment. Leadership practices can contribute positively or negatively to patients, nurses and overall healthcare organizational outcomes. (**Umrani & Afsar, 2019; Al-Yami, Galdas, & Watson, 2018; Cummings et al., 2010**)

The current global nursing workforce status quo is branded by a massive shortage of nurses, a mounting number of nurses retiring in the subsequent few years and an increasing proportion of nurses leaving and intending to leave healthcare organization in the following few years (**Labrague, et al., 2020; Labrague, et al., 2018; Zhang, et al. 2017; Rudman, Gustavsson, & Hultell, 2014**). For that reason, investigating and understanding the relationship between nurse leadership practices on work outcomes are critically relevant to effectively attract and retain nurses' professionals.

Toxic leadership can be defined as a negative practice of leadership when a leader engages in destructive behaviors producing direct or indirect harm to others and the overall healthcare organization (**Webster, Brough, & Daly, 2016**). This form of leadership is progressively becoming predominant in many institutions, including diverse health care organizations (**Dellasega & Volpe, 2013**). **Labrague et al. (2020)** defined a toxic leader as someone who employs damaging and dysfunctional actions or behaviors, comprising humiliating, intolerance, self-promoting and narcissistic behaviors.

Toxic leadership is a multidimensional structure that includes five dimensions: *Self-Promoting behaviors, Abusive Supervision, Unpredictability, Narcissism and Authoritarian*

Leadership. *Self-Promoting behaviors* are the attempt to present own self to others as an accomplished, capable, smart, and skilled person. Self-promotion can be done through face-to-face conversation, on blogs or social media platforms, in public speeches, or through self-mannerisms, posture, speech, or dress. *Abusive Supervision* is the subordinates' perceptions of the extent to which supervisors engage in the sustained exhibition of hostile verbal and nonverbal behaviors. *Unpredictability* occurs when it is impossible to know or be declared ahead of what may happen or what it would be like. These unpredictable leaders cannot tell what they are going to do or how they are going to behave. *Narcissism is* a self-centered and ego-centric personality style characterized as having an extreme interest in an individual's physical appearance or image. *Authoritarian Leadership* is a management style in which an individual has complete decision-making power and absolute control over his subordinates **(Schmidt 2014 & Schmidt 2008).**

In light of those dimensions, toxic leaders run through unfavorable, hostile, destructive, and toxic behaviors that affect the organization and poison their followers and work climate, where disparaging, discouraging, and ignoring the followers, influence through intimidation, depriving members of their social and political rights and their right to choose, favoritism, pay no attention to suggestions, and suppression of opposing views **(Labrague et al., 2020; Reyhanoğlu & Akın, 2016; Lipman-Blumen, 2006).**

Moreover, previous studies linked toxic leadership to negative work outcomes, worsening health and psychological issues. Those negative outcomes include: poor job performance, minor work motivation, decreased job involvement, repeated absenteeism, low productivity and augmented intention to leave healthcare organization **(Morris, 2019; Hadadian & Sayadpour, 2018; Hyson, 2016).** In addition to, the financial losses to the healthcare organization, economic cuts and the increasing of a toxic work environment with negative work outcomes **(Kılıç & Günsel, 2019& Erkutlu Chafra, 2017).**

Work outcomes can be measured through the following five dimensions: *Work Group* Cohesion*, Organizational Commitment, Organizational Trust, Work Group Productivity, and Job Satisfaction.* **(Steinke et al. 2017; Schmidt 2014 & Michalisin et al.2007).** *Workgroup cohesion* is well-defined as a multidimensional concept that tackles the individuals' attraction to the group and their readiness to continue working with the group in the future. Group cohesion is the exhibition of employees' sense of belonging, connectedness, and positive social relationships with one another, **(Michalisin et al. 2007)**. *Organizational commitment* measures the extent to which individuals discover their work fulfilling and are committed to their work unit and organization. Committed individuals exhibit enthusiasm for, and devotion to, the work that they do. *Organizational Trust is* the confidence of the workforce in the actions of the organization. This comprises confidence in managers and individual team members. It also extends to the organizational mission, vision, culture, and values. **(Steinke et al.,** *2017***& Truhon et al. 2010)**

Work Group Productivity is a measure of activities performed for quality output in a particular time period. It also involves raising satisfaction of all team members and providing the necessary tools to accomplish the tasks with complete efficiency. *Job Satisfaction* is a measure of staff contentedness with their job, whether they like the job or individual aspects or facets of jobs, such as the nature of work or supervision **(Steinke et al., 2017& Truhon et al. 2010).**

The scarcity of existing literature on how toxic leadership impacts work outcomes in nursing practices is very alarming given the contemporary nursing workforce situation. With the massive shortage of nurses, the ageing nurse population, the growing number of nurses who want to leave healthcare organization and the heavy cost of replacing an experienced nurse, it is more relevant than ever to examine how toxic leadership style contributes to nurses' work outcomes. Hence, this study was conducted to investigate the relationship between toxic leadership and work outcomes.

Aim of the Study

This study aims to investigate the relationship between toxic leadership as perceived by staff nurses and work outcomes at Shoubrakhit General Hospital.

Research questions

- What are the nurses` perception regarding toxic leadership at Shoubrakhit General Hospital?

- What are the nurses` perception regarding work outcomes at Shoubrakhit General Hospital?

- What is the relationship between nurses' perception of toxic leadership and work outcomes at Shoubrakhit General Hospital?

Materials and Method

Materials

Design: A cross-sectional quantitative research design was used to conduct this study.

Settings This study was conducted in all in-patient care units at Shoubrakhit General Hospital. This hospital is affiliated to the Ministry of Health and Population. It is considered one of the main hospitals in the El- Beheira governorate. This hospital was selected because it has the largest number of bed capacity (200 beds), different educational qualifications of nurses. Also, it provides wide range of healthcare services such as intensive care, inpatient, outpatient, radiological, laboratory, and physiotherapy health services. The hospital units are classified as follows; Intensive and critical care units (n=3) as General Intensive Care Unit (ICU) (n=1); Pediatric ICU (n=1) and High risk (n=1). Furthermore, in-patient care units (n=11) as medical (free and economic) (n=2); pediatric (n=1); dialysis (n=1); obstetrics and gynecology (free and economic) (n=2); and surgical unit (free and economic) (n=2), out-patient care unit (n=1), emergency care unit (n=1) and infectious disease unit (n=1).

Subjects: All target population of staff nurses (n=475) who worked in the previously selected settings for not less than six months and were available during the time of data collection Also, they were enthusiastic to participate in this study and showed interest in participating in this study, while all nurses who didn't have the previous characteristics were excluded. The study participants were distributed as follows; professional nurses (n = 140), technical nurses (n= 178), and practical nurses (n= 157).

Tools: In order to collect the necessary data for the study, two tools were used:

Tool I: The Toxic Leadership Scale:

It was developed by **Schmidt (2014)** as a shortened version of the original scale developed by **Schmidt** (**2008**) to measure toxic leadership behaviors. It contains 15 items divided into five subscales (three items in each sub-scale) as follows: Abusive supervision, Authoritarian leadership, Narcissism, Unpredictability, and Self-promotion. The response was measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).Overall score ranged from 15 to 75. Higher scores represent a higher level of toxic leadership behavior.

Tool II: Work Outcomes Scale.

It was developed by the researcher based on review of related literature **(Schmidt, 2014; Defense Equal Opportunity Management Institute**, **2013; Truhon et al. 2010; Michalisin et al.2007)** to measure the work outcomes. It consists of five main dimensions and 21 items as follows: Work Group Cohesion (4 items), Organizational Commitment (5 items), Organizational Trust (3 items) Work Group Productivity (4 items), and Job Satisfaction (5 items). Response was measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Overall score ranged from 21 to 105. Higher scores represent a higher level of perceived work out comes.

In addition, the staff nurses' demographic data sheet was developed by the researchers to collect data about their age, gender, educational level, current working unit, years of experience.

Method:

An approval for conducting the study was obtained from the Research Ethics Committee of the Faculty of Nursing, Damanhur University. Permission for conducting the study was obtained from the authoritative authorities of Faculty of Nursing, Damanhur and Alexandria University and from the directors at Shoubrakhit Hospital to conduct a study and collect the necessary data.

- The two tools were adapted, translated into Arabic and submitted to a panel of five experts, three professors from the Faculty of Nursing, Alexandria University and two professors from the Faculty of Nursing, Damanhour University to review and test face and content validity, to give their suggestions and recommendations regarding the tools' contents, the nature of questions, clarity of items. Their comments are taken into consideration to ensure accuracy and minimize potential threats to the study's validity.

- Tools reliability was tested to measure the internal consistency of the items composing each of them employing Cronbach's alpha coefficient and it was 0.90 for the tool one (Toxic Leadership Scale) and 0.86 for tool two (Work Outcomes Scale).

- The pilot study was carried out on 10% of staff nurses (n =48) from previously mentioned study settings in order to check and ensure clarity and feasibility of items, identify obstacles and problems that may be encountered during data collection and to test needed time for filling the tools. Some items required clarification from researchers with no modification needed. Participants who shared in the pilot study were not included in the study sample.

- The researchers arranged a time to meet staff nurses and give a full description of the aim of the study and written informed consents were collected from staff nurses who agreed to participate in the study.

- Data collection spent time about two months starting from half of October to half of December using a self-administered questionnaire. Time needed for completing the questionnaire was about 15 minutes. All questions were answered and explanations were given accordingly.

- After completion of data collection, the necessary statistical analysis was used to investigate the relationship between toxic leadership and work outcomes at Shoubrakhit General Hospital.

Ethical Considerations

- Written informed consent from the study subjects was obtained after explaining the aim of the study.
- Confidentiality of data was maintained.
- Anonymity of the study participants was kept.
- Subjects participated in the study voluntarily and had the right to withdraw at any time from the study.

Statistical Analysis

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent. The **Kolmogorov-Smirnov** test was used to verify the normality of distribution Quantitative data were described using range (minimum and maximum), mean, standard deviation. Significance of the obtained results was judged at the 5% level. The used tests are (1) Mann Whitney test: For abnormally distributed quantitative variables, to compare between two studied groups. (2) Kruskal Wallis test: For abnormally distributed quantitative variables, to compare between more than two studied groups. (3) Spearman coefficient: To correlate between two distributed abnormally quantitative variables.

Results

Table (1): shows that, the highest percentage of nurses (92.8%) were female and only 7.2% were male, 49.7% of were aged 20 to less than 30, and the lowest percentage of them 0.8 % were aged 50 years old and above. For the working department, 24.4 % of the nurses were working in General ICU, while 19.6% were working in the surgical unit. For the educational qualifications, 41.7% of nurses obtained a technical Nursing Institute diploma, and 37.9% of them had technical nursing secondary school diploma. Moreover, 66.7% and 78.1 % of nurses had less than 15 years of

experience in nursing and in working units respectively.

Table (2): reveals that 80.0% of nursing leaders had a high level of overall Toxic Leadership as perceived by studied nurses, while 8.0 % of them had a low **level**. The majority of leaders (80 %) had a high level of Abusive Supervision, and only 0.8% of them had a low level. (80.0%) of nursing leaders had a high level of Unpredictability as perceived by nurses, while only 1.5% of them had a low level. It was found that (80.0 %) of leaders had a high level of Narcissism and 0.0 % of them had a low level. On the other hand, 99.6 % of leaders had a moderate level of Authoritarian Leadership and 59.4 % of them had a moderate level of Self-promoting behaviors. For the overall Work Outcomes, 98.3 % of nurses had a moderate level, while 0.6 % of them had a low level. Also, for the Work Group Cohesion, 98.9% of nurses had a high level, while 0.6 % of them had a low level. Moreover, 60.0 % of nurses had a high level of Organizational Trust, while 20.0 % of them had a low level. The same table reveals the mean percent score and standard deviation of nursing leaders` Toxic Leadership as perceived by studied nurses and nurses` Work Outcome where the total nursing leaders` Toxic Leadership score is 58.44 ± 7.77. Leaders` Toxic Leadership dimensions as perceived by studied nurses could be ranked in descending order as follows; Unpredictability 13.54 ± 2.50, Abusive supervision 13.17 ± 2.46, Narcissism 13.17 ± 2.46, Self-promoting 9.58 ± 2.09 respectively, and finally Authoritarian Leadership 8.96 ± 0.39. Total nurses` work outcome is 68.31±6.88, while Work Outcome dimensions could be ranked in descending order as follows: Work Group Cohesion 16.54± 1.08; Job Satisfaction 15.53±1.05; Work Group Productivity 13.37±4.02; Organizational Commitment 12.87 ±1.66 respectively, and finally Organizational Trust was 10.00 ±3.17.

Table (3): reveals that, there was a statistically significant negative correlation between overall nursing leaders' Toxic Leadership as perceived by studied nurses and overall Work Outcomes, where r= − 0.108& p = 0.018. Also, there was a strong statistically significant negative correlation between overall perceived nursing leaders' Toxic Leadership and organizational commitment, organizational trust and job satisfaction where p = <0.001. On the other hand, there was a highly statistically significant relationship between Overall work outcomes and Abusive Supervision, Unpredictability and Narcissism where p= <0.001

Table (4): there was a statistically significant relationship between total overall nursing leaders' Toxic Leadership as perceived by studied nurses and nurses` age where p =0.010, while there was no a statistically significant relationship between overall nursing leaders` Toxic Leadership as perceived by studied nurses and all other nurses` demographic characteristics: gender, working unit, educational level, years of nursing experience and unit experience where p= 0.108, 0.615, 0.275, 0.262, 0.279 respectively. On the other hand, there was a statistically significant relationship between Unpredictability, Narcissism, Authoritarian Leadership and age where p=0.034, 0.034, <0.001 respectively. Also, there was a statistically relationship between Self-promoting behaviors and years of unit experience where p = <0.001.

Table (5): shows that, there is a statistically significant relationship between total nurses` Work Outcomes and age, educational level, years of nursing experience and unit experience where p= 0.001, 0.040, 0.018, 0.001 respectively. On the other hand, there is a statistically significant relationship between Work Group Cohesion and age where p=0.002. Also, there is a statistically significant relationship between Organizational Trust and age, educational level, years of nursing experience and unit experience where p= 0.007, 0.045, 0.025, <0.001 respectively. Moreover, there was a statistically relationship between Work Group Productivity and age, years of nursing experience, unit experience where p =0.001, 0.013, <0.001 respectively.

Table (1): Distribution of the studied nurses according to Socio-demographic data (n =475)

Nurses' Socio-demographic characteristics	No.	%
Age (years)		
20 – <30	236	49.7
30 – <40	199	41.9
40 – <50	36	7.6
≥ 50	4	0.8
Mean ± SD.	30.39 ± 7.28	
Sex		
Male	34	7.2
Female	441	92.8
Unit		
Medical unit	46	9.7
Surgical unit	93	19.6
General intensive unit (ICU)	116	24.4
Others	220	46.3
Pediatric intensive unit (ICU)	21	4.4
High risk care unit	29	6.1
Pediatric unit	23	4.8
Dialysis unit	38	8.0
Obstetric and gynecology	15	3.2
Out patient	30	6.3
Emergency care unit	53	11.2
Infection disease unit	11	2.3
Educational level		
Bachelor science in nursing	97	20.4
Technical Nursing Institute	198	41.7
Secondary nursing school diploma	180	37.9
Years' experience of nursing		
<15	317	66.7
15–<20	114	24.0
≥20	44	9.3
Mean ± SD.	11.60 ± 7.06	
Years' experience of unit		
<15	371	78.1
15–<20	76	16.0
≥20	28	5.9
Mean ± SD.	10.46 ± 6.83	

SD: Standard deviation

Table (2): Distribution of the studied nurses according to their perception about levels and mean percent score of Toxic Leadership and Work Outcomes (n =475)

	Low (<33.3%)		Moderate (33.3 – <66.6%)		High (≥ 66.6%)		Total score	% score	Mean score out of 5
	No.	%	No.	%	No.	%	Mean ± SD.	Mean ± SD.	Mean ± SD.
Toxic Leadership Scale	4	0.8	91	19.2	380	80.0	58.44 ± 7.77	72.39 ± 12.94	3.90 ± 0.52
Self-Promoting behaviors	3	0.6	282	59.4	190	40.0	9.58 ± 2.09	17.41 ± 17.41	3.19 ± 0.70
Abusive Supervision	4	0.8	91	19.2	380	80.0	13.17 ± 2.46	84.79 ± 20.51	4.39 ± 0.82
Unpredictability	7	1.5	88	18.5	380	80.0	13.54 ± 2.50	87.84 ± 20.80	4.51 ± 0.83
Narcissism	0	0.0	95	20.0	380	80.0	13.17 ± 2.46	84.79 ± 20.47	4.39 ± 0.82
Authoritarian Leadership	0	0.0	473	99.6	2	0.4	8.96 ± 0.39	49.70 ± 3.26	2.99 ± 0.13
Work outcomes scale	3	0.6	467	98.3	5	1.1	68.31 ± 6.88	3.25 ± 0.33	56.33 ± 8.19
Work Group Cohesion	3	0.6	2	0.4	470	98.9	16.54 ± 1.08	4.14 ± 0.27	78.41 ± 6.66
Organizational Commitment	97	20.4	373	78.5	5	1.1	12.87 ± 1.66	2.57 ± 0.33	39.34 ± 8.29
Organizational Trust	95	20.0	95	20.0	285	60.0	10.00 ± 3.17	3.33 ± 1.06	58.30 ±26.45
Work Group Productivity	96	20.2	189	39.8	190	40.0	13.37 ± 4.02	3.34 ± 1.01	58.59 ±25.14
Job Satisfaction	6	1.3	465	97.9	4	0.8	15.53 ± 1.05	3.11 ± 0.21	52.67 ± 5.23

SD: Standard deviation Low score: 0 < 33.3% Moderate score: 33.3 – 66.6% High score: ≥ 66.6%

Table (3): Correlation between nursing leaders` toxic leadership and work outcomes (n =475)

		Toxic Leadership Scale						Work outcomes scale					
		Self-Promoting	Abusive Supervision	Unpredictability	Narcissism	Authoritarian Leadership	Overall Toxic Leadership Scale	Work Group Cohesion	Organizational Commitment	Organizational Trust	Work Group Productivity	Job Satisfaction	Overall Work outcome
Self-Promoting	r_s		-0.110*	0.139*	0.139*	0.197*	0.485*	-0.511*	-0.618*	0.570*	0.619*	-0.280*	0.604*
	p		0.017*	0.002*	0.002*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*
Abusive Supervision	r_s			0.500*	0.500*	0.000	0.229*	0.308*	-0.223*	-0.133*	-0.176*	0.037	-0.240*
	p			<0.001*	<0.001*	0.993	<0.001*	<0.001*	<0.001*	0.004*	<0.001*	0.426	<0.001*
Unpredictability	r_s				1.000*	0.037	0.895*	-0.301*	-0.461*	-0.442*	-0.099*	-0.535*	-0.361*
	p				<0.001*	0.417	<0.001*	<0.001*	<0.001*	<0.001*	0.031*	<0.001*	<0.001*
Narcissism	r_s					0.038	0.894*	-0.301*	-0.461*	-0.442*	-0.099*	-0.535*	-0.361*
	p					0.415	<0.001*	<0.001*	<0.001*	<0.001*	0.031*	<0.001*	<0.001*
Authoritarian Leadership	r_s						0.237*	0.274*	0.155*	-0.091*	-0.197*	0.113*	-0.024
	p						<0.001*	<0.001*	0.001*	0.046*	<0.001*	0.014*	0.609
Overall Toxic Leadership Scale	r_s							0.477*	-0.577*	-0.235*	0.108*	-0.601*	-0.108*
	p							<0.001*	<0.001*	<0.001*	0.019*	<0.001*	0.018*
Work Group Cohesion	r_s								0.713*	-0.354*	-0.726*	0.592*	-0.484*
	p								<0.001*	<0.001*	<0.001*	<0.001*	<0.001*
Organizational Commitment	r_s									-0.256*	-0.485*	0.752*	-0.291*
	p									<0.001*	<0.001*	<0.001*	<0.001*
Organizational Trust	r_s										0.872*	0.310*	0.962*
	p										<0.001*	<0.001*	<0.001*
Work Group Productivity	r_s											0.022	0.915*
	p											0.635	<0.001*
Job Satisfaction	r_s												0.218*
	p												<0.001*
Overall Work outcome	r_s												
	p												

r_s: Spearman coefficient   Low correlation (r < 0.5) Moderate correlation (r: 0.5<0.7)   High correlation (r: 0.7<0.9)

*: Statistically significant at $p \leq 0.05$ *: Highly statistically significant at $p < 0.001$ Not statistically significant at $p > 0.05$

Table (4): Relation between mean percent score of studied nurses` perception about their nursing leaders` toxic leadership with demographic data   (n =475)

Demographic data	Toxic Leadership Scale					
	Self-Promoting behaviors	Abusive Supervision	Unpredictability	Narcissism	Authoritarian Leadership	Overall Toxic Leadership Scale
	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.
Age (years)						
20 – <30	56.36 ± 17.99	84.75 ± 19.44	89.41 ± 18.90	86.44 ± 19.61	49.79 ± 3.25	73.35 ±11.98
30 – <40	53.43 ± 16.29	85.80 ± 20.32	87.60 ± 20.56	84.34 ± 20.34	49.96 ± 2.44	72.23 ±12.55
40 – <50	51.16 ± 18.38	79.17 ± 27.71	77.78 ± 30.54	75.46 ± 24.96	47.69 ± 5.85	66.25 ±19.05
≥ 50	68.75 ± 19.69	87.50 ± 14.43	97.92 ± 4.17	93.75 ± 12.50	50.0 ± 0.0	79.58 ± 2.50
H(p)	**6.406 (0.093)**	**1.657 (0.647)**	**8.695*(0.034*)**	**8.693*(0.034*)**	**19.226*(<0.001*)**	**11.386*(0.010*)**
Sex						
Male	51.72 ± 16.64	83.09 ± 23.61	83.82 ± 23.74	80.39 ± 22.27	49.02 ± 3.98	69.61 ±15.11
Female	55.08 ± 17.47	84.92 ± 20.28	88.15 ± 20.55	85.13 ± 20.31	49.75 ± 3.19	72.61 ±12.76
U(p)	**6817.50(0.317)**	**7372.50(0.854)**	**6626.0(0.198)**	**6621.50(0.196)**	**7194.0 (0.180)**	**6308.50(0.108)**
Unit						
Medical unit	54.89 ± 18.14	82.07 ± 20.86	86.23 ± 22.92	84.42 ± 22.13	49.64 ± 2.46	71.45 ±13.80
Surgical unit	53.94 ± 17.49	84.41 ± 21.78	86.65 ± 21.81	83.24 ± 21.09	49.55 ± 4.32	71.56 ±13.96
General intensive unit (ICU)	53.81 ± 17.0	85.56 ± 20.63	87.79 ± 21.01	84.63 ± 20.64	49.43 ± 3.05	72.24 ±12.98
Others	55.76 ± 17.51	85.11 ± 19.92	88.71 ± 19.86	85.61 ± 19.86	49.92 ± 2.98	73.02 ±12.34
H(p)	**1.103 (0.776)**	**1.310 (0.727)**	**0.848 (0.838)**	**0.877 (0.831)**	**2.220 (0.528)**	**1.80 (0.615)**
Educational level						
Bachelor science in nursing	54.55 ± 17.72	82.99 ± 22.11	85.22 ± 23.09	82.13 ± 21.45	49.31 ± 3.33	70.84 ±14.39
Technical Nursing Institute	53.07 ± 16.90	84.72 ± 21.0	87.50 ± 21.34	84.97 ± 20.99	49.58 ± 2.62	71.97 ±13.21
Secondary nursing school diploma	56.94 ± 17.67	85.83 ± 19.07	89.63 ± 18.74	86.02 ± 19.31	50.05 ± 3.79	73.69 ±11.72
H(p)	**4.798 (0.091)**	**0.629 (0.730)**	**2.283 (0.319)**	**2.184 (0.336)**	**2.938 (0.230)**	**2.579 (0.275)**
Years' experience of nursing						
<15	55.73 ± 17.43	85.17 ± 19.71	88.72 ± 19.38	85.36 ± 19.86	49.87 ± 3.28	72.97 ±12.16
15–<20	53.14 ± 16.72	85.09 ± 20.43	87.79 ± 20.78	85.31 ± 20.45	49.85 ± 1.56	72.24 ±12.65
≥20	52.84 ± 18.93	81.25 ± 25.93	81.63 ± 28.79	79.36 ± 24.28	48.11 ± 5.35	68.64 ±17.95
H(p)	**2.327 (0.312)**	**0.366 (0.833)**	**2.679 (0.262)**	**2.710 (0.258)**	**14.395*(0.001*)**	**2.676 (0.262)**
Years' experience of unit						
<15	56.11 ± 17.41	85.71 ± 19.40	89.20 ± 18.87	85.60 ± 19.50	49.84 ± 3.15	73.29 ±11.86
15–<20	47.59 ± 15.20	80.92 ± 24.45	82.57 ± 26.46	82.57 ± 24.04	49.12 ± 3.75	68.55 ±16.05
≥20	57.74 ± 18.69	83.04 ± 22.62	84.23 ± 25.49	80.06 ± 22.26	49.40 ± 3.15	70.89 ±15.62
H(p)	**16.644*(<0.001*)**	**1.656 (0.437)**	**2.135 (0.344)**	**2.108 (0.348)**	**3.544 (0.170)**	**2.556 (0.279)**

SD: Standard deviation   **H: H for Kruskal Wallis test**   **U: Mann Whitney test**

p: p value for comparison between the studied categories

*: Statistically significant at p ≤ 0.05

Table (5): Relation between mean percent score of work outcomes with demographic data (n =475)

Demographic data	Work outcome					
	Work Group Cohesion	Organizational Commitment	Organizational Trust	Work Group Productivity	Job Satisfaction	Overall Work outcome
	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.	Mean ± SD.
Age (years)						
20 – <30	77.97 ± 6.58	38.96 ± 8.55	58.72 ± 26.23	60.51 ± 26.27	52.54 ± 5.45	56.55 ± 8.24
30 – <40	79.38 ± 5.96	39.82 ± 7.29	55.70 ± 27.48	54.02 ± 22.98	52.69 ± 5.24	55.38 ± 8.30
40 – <50	76.39 ± 9.58	38.75 ± 9.74	67.59 ± 20.10	68.40 ± 24.32	53.06 ± 2.47	59.09 ± 5.99
≥ 50	75.00 ± 7.22	42.50 ± 21.79	79.17 ± 4.81	84.38 ± 18.04	56.25 ± 9.46	65.18 ± 6.55
H(p)	14.484* (0.002*)	5.099(0.165)	11.992* (0.007*)	17.338* (0.001*)	2.187(0.534)	15.735* (0.001*)
Sex						
Male	78.13 ± 10.24	39.56 ± 7.42	58.33 ± 27.22	56.62 ± 23.48	53.24 ± 2.43	56.09 ± 7.72
Female	78.43 ± 6.32	39.32 ± 8.36	58.30 ± 26.42	58.74 ± 25.28	52.63 ± 5.38	56.35 ± 8.23
U(p)	7120.500 (0.483)	7152.000 (0.641)	7395.000 (0.893)	7229.500 (0.717)	7125.000 (0.574)	7248.500 (0.737)
Unit						
Medical unit	78.80 ± 5.01	40.65 ± 10.14	55.80 ± 28.05	57.07 ± 25.77	51.96 ± 9.04	55.90 ± 9.67
Surgical unit	79.10 ± 4.74	38.98 ± 7.32	55.73 ± 28.47	56.25 ± 24.98	52.47 ± 5.09	55.52 ± 8.44
General intensive unit (ICU)	78.36 ± 7.40	39.01 ± 8.78	55.24 ± 29.11	56.47 ± 26.35	52.72 ± 4.86	55.40 ± 9.07
Others	78.07 ± 7.23	39.39 ± 8.01	61.52 ± 23.41	61.02 ± 24.36	52.89 ± 4.35	57.25 ± 7.14
H(p)	1.156(0.764)	0.594(0.898)	1.682(0.641)	4.007(0.261)	2.285(0.515)	1.657(0.647)
Educational level						
Bachelor science in nursing	77.96 ± 6.06	39.28 ± 8.51	63.75 ± 22.60	63.53 ± 24.47	53.14 ± 2.43	58.06 ± 6.55
Technical Nursing Institute	78.50 ± 7.00	39.82 ± 8.58	55.60 ± 27.37	56.44 ± 25.31	52.58 ± 5.85	55.65 ± 8.66
Secondary nursing school diploma	78.55 ± 6.62	38.83 ± 7.84	58.33 ± 27.02	58.30 ± 25.09	52.53 ± 5.61	56.14 ± 8.35
H(p)	1.765 (0.414)	0.913 (0.634)	6.187* (0.045*)	5.820 (0.054)	0.520 (0.771)	6.417* (0.040*)
Years' experience of nursing						
<15	78.44 ± 6.24	39.24 ± 8.19	58.89 ± 26.17	59.13 ± 25.13	52.70 ± 5.30	56.50 ± 8.08
15–<20	79.00 ± 6.71	39.74 ± 7.55	54.31 ± 27.72	54.06 ± 24.23	52.41 ± 5.57	55.04 ± 8.59
≥20	76.70 ± 8.98	38.98 ± 10.65	64.39 ± 24.07	66.48 ± 25.75	53.18 ± 3.59	58.41 ± 7.51
H(p)	4.335 (0.114)	2.414 (0.299)	7.340* (0.025*)	8.711* (0.013*)	0.069 (0.966)	8.030* (0.018*)
Years' experience of unit						
<15	78.29 ± 6.70	38.99 ± 8.02	59.52 ± 25.99	59.82 ± 25.11	52.75 ± 4.99	56.65 ± 7.93
15–<20	79.28 ± 6.79	40.79 ± 7.79	48.14 ± 28.17	48.68 ± 23.28	51.91 ± 6.58	53.32 ± 9.12
≥20	77.68 ± 5.75	40.00 ± 12.17	69.64 ± 19.41	69.20 ± 23.13	53.75 ± 4.00	60.25 ± 6.43
H(p)	4.318 (0.115)	5.140 (0.077)	23.485* (<0.001*)	21.414* (<0.001*)	1.084 (0.582)	24.395* (<0.001*)

SD: **Standard deviation**   H: H for **Kruskal Wallis test**   U: **Mann Whitney test**

p: p value for comparison between the studied categories

*: Statistically significant at p ≤ 0.05

Discussion

Healthcare organizational leaders are of particular significance, since their subordinate efficient nurses are to perform pre-determined activities willingly and voluntarily in line with organizational goals **(Schmidt, 2014).** Most of the previous studies have focused on the positive aspects of leadership behavior while neglecting the dark side of leadership that can have negative effects on factors such as turnover, stress, performance work productivity, and work outcomes. **(Nauman, & Fatima, 2018).** These destructive leadership behaviors have been conceptualized and examined under such labels as abusive supervision, destructive leadership, and toxic leadership. Toxic leadership has recently become an essential issue in most health organizations due to the damaging form of leadership that may have a detrimental effect on nurses` work outcomes. **(Yavas, 2016).**

The current study revealed that studied nurses perceived that their nursing leaders had a high level of Toxic Leadership and a high level of most of its dimensions. This result may be attributed to the fact that nursing leaders haven't received any training programs to explain leaders` roles and effective leadership styles that enhance their leadership skills. Also, they have a deficiency in workshops that assist them to apply leadership practices which direct, organize and promote activities and relationships within a hospital. The current result was confirmed by **Abdallah & Mostafa (2022)** who found that staff nurses perceived their leaders as having high overall toxic leadership levels. Along the same line, **Brown (2019)** showed that staff members a had high overall toxic leadership level and had high turnover due to experiencing toxic leadership.

The study findings revealed that, the highest level of work outcomes' dimension was for Group Work Cohesion. This result may be attributed to the fact that staff nurses have tried to overcome obstacles and the negative effect of their leaders` destructive style by supporting each other, working together in a cooperative manner and creating positive social relationships with one another. This result is consistent with **Schmidt, (2014)** who found the highest level of work outcomes was due to group cohesiveness. **Rafferty &Restubog (2011)** mentioned that where toxic leadership appears, nurses become

willing to help each other beyond the direct, explicit job requirements.

The results of the present study showed a statistically significant negative correlation between nursing leaders` Toxic Leadership as perceived by staff nurses and Work Outcomes. This may be attributable to the fact that the hospital nursing leaders practice a high level of negative leadership behaviors, send a message to staff nurses that their work is not valued and their efforts are not appreciated which led nurses to be less productive, uncommitted, dissatisfied, and had less trust. The study findings are consistent with **Natesha & Imani (2019)** who found that toxic leadership negatively affects nurses' job performance and work outcomes on both individual and organizational level. In the same line, **Al-Zaabi, Abu-Elanian &Ajmal (2018); Schmidt (2014) have** found a negative relationship between toxic leadership and work outcomes.

Also, the present findings showed that, there is a statistically significant negative relationship between overall Toxic Leadership and organizational commitment, organizational trust, and job satisfaction. These findings may be attributable to that the nursing leaders of this hospital are dealing with their staff nurses in an abusive way as there is no sufficient respect or trust, a lack of communication and no chance for nurses` decision-making participation which affect work outcomes, nurses` job satisfaction and commitment toward their hospital. This is consistent with **Labrague, Nwafor &Tsaras, (2020)** who found that nurses reported moderate job satisfaction and moderate commitment, high absenteeism and intention to leave, as toxic leadership practices impacted their overall job outcomes level. Also, **Matos (2018) &Wolor (2022)** mentioned that, toxic leaders create contexts that negatively affect job satisfaction level of service members' and their organizational commitment.

Moreover, the present findings showed that there was a statistically significant negative relationship between overall work outcomes and Abusive supervision, Unpredictability and Narcissism. These findings may be attributed to the fact that nursing leaders show a lack of respect and trust exhibiting excessive need for self-recognition, admiration, and superiority to achieve the dream of power and success as well as feeling of one-self unique regardless of their staff's

interpersonal relationships and needs; poor work outcomes appears. **Ghislieri et al. (2019)** mentioned that narcissistic leadership, where a leader exhibits an increased sense of grandiosity and positive self-presentation, has been correlated with poor work outcomes such as job dissatisfaction and reduced interest in the profession. Similarly, **Schmidt (2014)** found a negative relation between job outcomes, and Unpredictability and abusive supervision.

Furthermore, the current study revealed that there is no statistically significant relationship between toxic leadership's overall mean score and all staff nurses` demographic data except age. These results may be attributed to that hospital toxic leaders` behaviors are not be changed or affected by separate demographic characteristics of staff nurses. This result is consistent with **Khufran et al. (2022) & Behery et al. (2018)** who found that there is no statistically significant relationship between toxic leadership and demographic data. Contrary to the present study, **Singh, Dev & Sengupta (2017)** found a significant relation between toxic leadership and all staff nurses` demographic data.

Moreover, the study revealed a statistically significant relationship between overall work outcome and all nurses` demographic characteristics except gender and working unit. These results may be due to group productivity, commitment, job satisfaction, and group cohesion which is affected mainly by age, educational level and experience, reflected in work outcomes. This result is consistent with **Sankari1 et al. (2015); Banjo &Olufemi (2017),** who found a significant relationship between work outcomes and staff nurses` demographic data.

Conclusion

Based on the findings of the current study, it could be concluded that there is a statistically significant negative correlation between overall nursing leaders' Toxic Leadership as perceived by staff nurses and overall Work Outcomes. Also, most of studied nurses perceived that their leaders had high overall toxic leadership level. Besides, most of the staff nurses had a moderate level of work outcomes.

Recommendations

In line with the findings of the study, the following recommendations are made:

The health care organizations should:

- Establish leadership training programs to provide nursing leaders with the leadership skills and practices that they need to perform their roles toward nurses to enhance the work outcomes.
- Apply subordinates` performance appraisals that permit nursing staff to participate in leadership evaluation and the appraisal process.
- Listen to staff nurses' feedback regarding the behavior of their current leaders which might help in identifying toxic leaders.
- Create a constructive work environment with supportive management, motivate and encourage human relationships with staff members.

The nursing leaders and supervisors should:

- Participate in an in-service training program on ethical professional behaviors in practice, stress management, and effective communication.
- Allow nurses to participate in decision making that will enhance interpersonal relationships, fostering trust and that will improve their satisfaction, confidence, and commitment.
- Pay attention to identifying staff nurses' needs related to work and try to meet these needs.

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