The Effect of Ethical Leadership and Green Management on Green Psychological Climate as Perceived by Nursing Staff

Afaf Soliman Ahmed[1], Marwa Kamal Mohamed[2] & Marwa Talaat Abd Al Ghany[3]
[1.] Lecturer of Nursing Administration, Faculty of Nursing, Cairo University, Egypt.
[2.] Lecturer of Nursing Administration, Faculty of Nursing, Cairo University, Egypt.
[3.] Lecturer of Nursing Administration, Faculty of Nursing, Damietta University, Egypt.

Abstract

Background: The ethical leadership maintains a high level of integrity, morality and fairness in their decisions for achieving the organization's goals more effectively. The leaders provide trust, moral standards, values of the organization, and rewarding subordinate, green management which have become play a pivotal role in fostering a green psychological climate that has gained critical importance nowadays**. The study aimed to** explore the effect of ethical leadership and green management on green psychological climate as perceived by nursing staff. **Design:** Descriptive-correlational research design. **Setting:** The study was conducted at the Internal Medicine hospital that is affiliated with Cairo University Teaching Hospitals. **Subjects:** Convenience sample of all available nursing staff (n= 122). **Tools:** Three tools were used for data collection as follows: (1) namely Ethical Leadership (2) Green Management, and (3) Green Psychological Climate Questionnaire. **Results**: The findings showed that majority of staff nurses had a high perception level of ethical leadership, most of them had a low green management behaviors level and finally majority had a low perception level of green psychological climate. **Conclusion:** There was a highly significant statistical strong positive effect of ethical leadership on green psychological climate among nursing staff. Moreover, there was highly significant statistical strong positive effect of green management on green psychological climate among nursing staff. **Recommendations:** Develop leadership training programs by nursing administrators, integrating green management practices into strategic planning and ensuring that these practices align with ethical leadership principles to foster a supportive environment for nursing staff.

Keywords: Ethical Leadership, Green Management, Green Psychological Climate & Nursing Staff

Introduction:

Considering the fact that environmental issues and raising awareness of sustainable skills in healthcare, the role of leadership and management in shaping organizational climate has gained critical importance. Ethical leadership and green management are two influential factors that contribute to fostering a green psychological climate—employees' shared perception of environmentally friendly practices and values within the workplace. In the healthcare sector, particularly among nursing staff, this green psychological climate not only influences environmental behavior but also enhances organizational commitment and job satisfaction **(Hassan, et al., 2023)**.

Ethical leadership is a style of leadership founded on universal values and strong moral standards, including respect for others, honesty, integrity, and a sense of psychological safety. According to **Brown et al., (2005),** EL is "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making." The notion that opinions about a leader's conduct and interactions with followers serve as the foundation for evaluating that leader's ethical leadership is implied in this term **(Ren, et al., 2021)**.

The EL behaviors have a significant impact on nurses' attitudes and ethical behavior, which in turn affects organizational performance. They are also essential to leaders' trust. It is required of ethical leaders to exhibit and promote high standards of morality and ethical behavior. It is a more transactional method to promoting ethics and morality since they use rewards and punishments to promote and encourage ethical behavior among employees **(Kuenzi, et al., 2020)**. Ethical leaders can suggest ideas, values, attitudes, and moral behaviors by becoming authentic role models for normative actions. They can affect how staff members view the organization's environmental sustainability policies, processes, and practices and go above and above to uphold green psychological climate GPC **(Sabokro, et al., 2021)**.

Worldwide, organizations are taking environmentally friendly initiatives as well motivating their staff to practice eco-friendly behaviors. Green practices are essential for growth, survival, and maintaining a competitive edge. The use of eco-friendly methods in healthcare delivery is known as "green health care." Green behaviors among employees can be broadly

defined as actions taken by staff members to protect the environment and natural resources in order to lessen environmental degradation and enhance environmental quality while offering patients the best medical treatment possible and guaranteeing their safety **(Fadda, 2020).**

Green management refers to the strategic integration of environmental sustainability into an organization's operations, practices, and culture. It includes green research, green development, and green marketing, waste management systems, eco-friendly procurement, green human resource practices (e.g., environmental training, green performance appraisal). Green management sends strong organizational signals about environmental values and expectations **(Amrutha, Geetha, 2020).**

Green management's primary tenet is to turn the workforce into a green workforce in addition to the activities. This refers to methods, regulations, guidelines, and procedures intended to encourage employees to act in a more environmentally friendly manner that supports the preservation of natural resources, the environment, and public preferences. It refers to a managerial framework that serves as the foundation for initiatives aimed at strengthening and enhancing environmental management **(Alzgool, 2019).**

Green management shapes the green psychological climate which is a key antecedent to green behavior. A strong green climate enhances employees' belief that environmental behavior is both expected and supported. Concerning environmental sustainability, it refers to "employees' perceptions and interpretations of their organization's policies, procedures, and practices." Social cognitive processes (social interactions allow employees to build a shared perspective of the organization's practices and policies) generate employees' shared perception of the organization's policies, procedures, and practices. Stated differently, the psychological climate of an organization is shaped by the way its employees engage with its social environment and discuss its policies and practices **(Rudolph, et al., 2019).**

Ethical leaders set moral guidelines and inspire their followers to adhere to them. They illustrate to their subordinates the significance of the established ethical standards and address any doubts that employees may have about them by employing two-way communication techniques. In addition to using a system of rewards and penalties to enforce the ethical standards, they also encourage their followers to voice any issues they may have about them in order to foster an ethical environment within the company. Since sustainability is a moral issue and preserving the environment is seen as a moral duty, moral leaders are likely to create and advance environmental norms to preserve the ecosystem **(Usman, et al., 2018 & Zhang; Tu, 2018,).**

Nurses who perceive a strong green psychological climate may be more engaged in organizational sustainability efforts, leading to more effective and consistent implementation of green practices. Hospitals and healthcare organizations that are known for ethical leadership and green management practices can attract top talent, improve their public image, and build a strong brand identity centered on sustainability. A green psychological climate can indirectly impact patient care by creating a healthier, more focused work environment, where nurses are motivated and empowered to perform at their best. A workplace that values ethics and sustainability can enhance job satisfaction, as nurses feel their work contributes to both patient care and environmental protection **(Aboramadan, 2022).**

Significance of Study

Nurses are guided by professional codes of ethics that include commitments to patient welfare, public health, and broader social responsibility. When ethical leadership aligns with green values, it reinforces these professional commitments and fosters a workplace environment where sustainability becomes part of the everyday ethical framework. This not only enhances the green psychological climate but also encourages nurses to engage more actively in eco-friendly practices within their clinical roles **(Ayan, Baykal 2023)**.

Ethical leadership is considered as fundamental guidelines for green decision making, helping the employees to understand their roles and responsibilities within the organization and increase staff morale through equal treatment of all health care providers. Also, it supports green management behaviors through improving work processes, providing guidance to solve problems, helping nurses in providing clarity when dealing with issues and activities that are critical to health and safety, using creative solutions to solve problems that protect patient rights and improve patient outcome. **(Ren, et al., 2021).** A study carried out by **Manna (2020)** at Internal Medicine of El Kaser Al Aini hospital to assess the presence of clear policy, effective work environment, the investigator found that there was an unsatisfactory level of quality of work environment and continuity of patient care. Also recommended the importance of presence effective leadership style and clear organizational structure.

From the investigators clinical experience and according to the nature of the study setting, most nurses do not comply with the nursing code of ethics resulting in unethical leadership style in different situations, which affects negatively the performance of supervisors and thus the performance of the nursing

staff. The Internal Medicine Hospital is providing health services to all people in different cities in Egypt. It includes 290 beds of critical, acute and chronic patients. It represents a training area for different nursing students' categories; therefore, GPC is a must., ethical leadership style as well green management behaviors can help in creating a green psychological climate in the work place.

This study holds both theoretical and practical significance within the fields of healthcare management, environmental sustainability, and organizational behavior. As hospitals and healthcare institutions face increasing pressure to adopt environmentally responsible practices, understanding the psychological and organizational factors that support these efforts becomes critical.

From a theoretical perspective, this research contributes to the growing body of literature on green organizational behavior by linking ethical leadership and green management practices to the formation of a green psychological climate. While previous studies have explored these variables in corporate settings, limited research has focused on healthcare, particularly the perceptions of nursing staff, who represent a vital, frontline workforce.

Ultimately, this study supports the development of sustainable healthcare systems by promoting environmentally responsible behaviors and attitudes among one of the most influential groups in patient care. Enhancing the green psychological climate among nurses can lead to more sustainable hospital environments, better alignment with public health goals, and a positive impact on both ecological and human well-being.

Aim of the Study

The study was conducted to explore the effect of ethical leadership and green management on green psychological climate as perceived by nursing staff

Research Questions:

To fulfill the aim of the study, the following research questions were formulated:

1. What is the perceived level of ethical leadership among nursing staff?
2. What is the perceived level of green management among nursing staff?
3. What is the perceived level of green psychological climate among nursing staff?
4. What is the effect of ethical leadership and green management on green psychological climate?

Subject and Methods

Research Design:

Descriptive-correlational research design was utilized to explore the relationship between research variables and determine how much each one affects the other.

Setting:

This study was carried out at Internal Medicine hospital, which is affiliated to Cairo University Teaching Hospitals, the hospital provide care for all Egyptian people from different countries, the total number of bed capacity around 400 beds including the following units: (critical care units - an intermediate ICU – emergency unit- internal departments from the 2nd to 8th floor).

Sample:

Convenience sample of all available staff nurses (n= 122) who were working at study setting at the time of data collection and agreed to participate in the study and divided as follows:one nurse director, 3 nurse supervisors, 10 head nurses, and 108 staff nurses

Data Collection Tools:

Study data were collected using three self-administered questionnaires.

Tool (I): Nurses' Perception of Ethical leadership Questionnaire: It was composed of two parts:

First part: Nursing staff personal characteristics data sheet included: age, gender, marital status, educational qualification, years of experience and nursing position.

Second part: Nurses' perception of ethical leadership questionnaire**:** A structured questionnaire was developed by the researchers based on a review of recent related literature **(Kalshoven, et al., 2011).** It was used to identify nursing staff's level of ethical leadership as perceived by nursing staff. It consisted of three dimensions including (45) items as follows: the personal ethics of leadership (14 items), the administrative ethics of leadership (17 items), and the relational ethics of leadership (14 items).

Scoring system:

The nursing staff's responses were measured on a five-point Likert scale   ranging from 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4= agree, 5=strongly agree.

Overall scores were summed up and divided into three levels by expert statistician as follows:

- Low perception of ethical leadership (< 35%)
- Moderate perception of ethical leadership (35% - <75%)
- High perception of workplace incivility (75% - 100%)

Tool (II): Green management Questionnaire:

A structured questionnaire was developed by researchers based on relevant literature **(Ahmed, 2015 & Teixeira, et al., 2016).** It was used to assess the level of green management as perceived by nursing staff. It consisted of (43) items, sub divided into seven dimensions as follows: Green analysis and planning (10 items), Green recruitment and selection (5 items) items, green employees' performance (7 items) items, Environmental performance (8 items), Green training

and relationship management, (8 items), Green incentives, compensation and rewards (3 items), and green staff discipline (2 items).

Scoring system:

The nursing staff's responses were measured on a five-point Likert scale ranging from 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree. Overall scores were summed up and divided into three levels by expert statistician as follows:

- Low perception of green management ($< 35\%$)
- Moderate perception of green management ($35\% - <75\%$)
- High perception of green management ($75\% - 100\%$).

Tool (III): Green Psychological Climate Questionnaire.

It is a self-administered questionnaire, it was developed by researchers based on relevant literature **(Zhou, et al., 2018)**. It was used to identify the level of green psychological climate as perceived by nursing staff. It consisted of (10) items.

Scoring system: the nursing staff's responses were measured on a five-point Likert scale ranging from 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4= agree, 5=strongly agree. Overall scores were summed up and divided into three levels by expert statistician as follows:

- Low perception of green psychological climate ($< 35\%$)
- Moderate perception of green psychological climate ($35\% - <75\%$)
- High perception of green psychological climate ($75\% - 100\%$)

Validity and reliability:

The study tools were presented to three experts: two of them are from nursing administration department at the faculty of nursing Cairo University and one assistant professor at community health nursing Damietta university, to judge the content validity of the study tools. A pilot study was conducted on 10% of the present sample (n= 12) to ensure clarity and applicability tools clarity and applicability. Based on the experts' recommendations and the pilot study, the study tools were refined and finalized. Internal consistency reliability of the study tools (tool I, II &III) was determined by using Cronbach's alpha coefficient test and was (0.93 & 0.90 & 0.8 respectively).

Ethical Consideration:

Approval of the scientific ethical research committee was acquired from the Faculty of Nursing, Cairo University before conducting the study. Also, official permission was granted by faculty authorities to the medical and nursing directors of the study hospitals to

conduct the study. Nurses' participation in the study was voluntary and they were free to agree or decline to participate. Informed consent was acquired from all study nurses after a full explanation of the nature and purpose of the study. The study data was coded to ensure anonymity and confidentiality. At any time during the study, nurses had the right to withdraw.

Procedure:

Prior to data collection, an official permission was obtained from the Vice Dean of Higher studies and Research at the Faculty of Nursing –Cairo University and forwarded to the general director and nursing director of the selected teaching hospital to be signed for accepting the conduction of the current study. The investigator visited the head nurses of the units and departments and explained the purpose, nature, significance of the study as well as the ethical considerations, methods of data collection in addition to obtaining their acceptance, seeking their cooperation and obtaining the all-eligible nursing staff's monthly working schedule in order to design a schedule for facilitating the presence of the researcher and observation process.

The participants were interviewed either individually or in groups. The best time to gather data was determined by the type of work and workload for each unit; occasionally, it was during the middle of the morning or afternoon shift. The study nurses took between 15 to 20 minutes to complete the study tools. After each participant filled out the tools, the researchers checked their completeness. Data was collected in May 2023and lasted for about two months.

Statistical Design

The study data were entered into and analyzed using SPSS version 25. Descriptive data were presented using numbers, percent, minimum, maximum, mean, and standard deviation. The Kolmogorov-Smirnov test was used to examine the normality of the distribution. Also, Spearman's correlation coefficient, ANOVA, and linear regression tests were used. The significant level of all statistical analyses is at 0.05 (p-value).

Results

Table (1): Nursing staff's personal characteristics data (n=122)

Nursing staff characteristics data		NO	%
Age	20- <30 years	32	26.23%
	30- <40 years	49	40.18%
	40- <50 years	34	27.85%
	50- 60 years	7	5.74%
Gender	Male	23	18.85%
	Female	99	81.15%
Marital status	Single	52	42.62%
	Married	63	51.64%
	Divorced	4	3.28%
	Widow	3	2.46%
Years of profession experience	< 5 years	16	13.11%
	5 - < 10 years	45	36.88%
	>10 years	61	50%

Figure (1): Nursing staff's distribution regarding their educational qualification (n=122)

Figure (2):Nursing staff's distribution regarding their position (n=122)

Table (2): Mean and mean percentage of nursing staff's perception of ethical leadership(n=122).

Dimensions	MiNo	Max	MeaNo	SD	Mean %
Leadership personality traits	50.00	66.00	61.20	4.81	92.7%
Administrative ethics for leadership	47.00	70.00	61.24	7.54	78.5%
Communication ethics for leadership	46.00	70.00	60.69	6.65	86.7%
Total ethical leadership	146.0	206.0	183.14	18.07	88.9%

Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (3): Nursing staff's distribution regarding ethical leadership levels (n=122).

Level	NO	%
Low	0	0
Moderate	22	18.03
High	100	81.9

Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (4): Mean and mean percentage of nursing staff's perception of green management(n=122).

Dimensions	Min	Max	Mean	SD	Mean %
Extent of application of green analysis and planning	31	48	10.8	2.89	22.55%
Polarization and green employment	14	25	18.2	2.8	32.8%
Green performance management and evaluation	19	35	13.4	3.58	45,14%
Environmental performance	24	40	11.3	4.07	28.25%
Green training and relationship management	26	40	10.7	3.32	26.75%
Green incentives, compensation, and rewards	8	15	5	1.5	33.33%
Management of fine-tuning and adjusting the green nursing staff	5	10	3.49	0.96	34.9%
Total Green management	143	210	72.89	15.86	34.70%

Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (5): Nursing staff's distribution regarding green management levels (n=122).

Level	NO	%
Low	117	95.9%
Moderate	5	4.1%
High	0	0

Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (6): Mean and mean percentage of nursing staff's perception of green psychological climate(n=122).

Dimensions	Min	Max	Mean	SD	Mean %
Provide new suggestions and ideas about friendly practices for the environment in my organization	3.0	5.0	2.22	0.64	44%
At work, I participate in environmentally friendly programs	3.0	5.0	1.34	0.62	26.8%
I share my knowledge of the environment with my co-workers	3.0	5.0	1.70	0.6	34%
At work I wonder about the practices that from a potential harm to the environment	3.0	5.0	1.66	0.62	32%
At work I perform some environmental tasks more than required from my institution	3.0	5.0	1.63	0.61	32.6%
At work I feel self-confident during environmental practices	3.0	5.0	1.44	0.63	28.8%
I am satisfied with the nursing staff's assessment of the extent of commitment Implementation of environmental practices	3.0	5.0	1.32	0.64	26.4%
Maintain optimal consumption of environmental resources	3.0	5.0	1.58	0.63	31.6%
I participate in the search for best practices that enhance the healthy safe green	3.0	5.0	1.32	0.63	26.4%
I participate in adopting different methods in preserving the environment	3.0	5.0	1.67	0.62	33.4%
Total green psychological climate	34	50	15.88	5.22	31.76%

Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (7): Nursing staff's distribution regarding green psychological climate levels (n=122)

Level	NO	%
Low	109	89.3
Moderate	13	10.7
High	0	0

*Low perception = < 35%, Moderate perception = 35% -75, High perception = 75% - 100%

Table (8): Effect of total ethical leadership on total green management among nursing staff (n=122)

	Ethical leadership	
	r	p
Total Green Management	0.922	<0.001

r: Pearson correlation.   P: p value.   P-value > 0.05: Non-significant;
P-value < 0.05: Significant;   P-value < 0.001: Highly significant

Table (9): Effect of total ethical leadership on total green psychological climate among nursing staff (n=122)

Linear Regression Model	R	Green psychological climate			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
Constant		-6.331	1.594	0.944	-3.971	0.000
Total Ethical leadership	0.944	0.273	0.009		31.487	0.000

r: Pearson correlation.   P: p value.   P-value > 0.05: Non-significant;
P-value < 0.05: Significant;   P-value < 0.001: Highly significant

Table (10): Effect of green management on total green psychological climate among nursing staff (n=122)

Linear Regression Model	R	Green psychological climate			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
(Constant)		-13.096	2.203		-5.943	0.000
Total Green management	0.921	0.303	0.012	0.921	25.835	0.000

Table (11): Effect of total ethical leadership and total green management on green psychological climate among nursing staff (n=122)

	Green psychological climate			
			95.0% Confidence Interval for B	
	t	sig	lower Bound	Upper Bound
Ethical leadership	7.046	0.000	0.179	0.319
Green management	0.695	0.488	-0.052	0.108

Table (1): Shows nursing staff nurses personal data. The table illustrates that around two fifths (42%) of nursing staff were in the age group 30- <40 and the highest percentage (81.15% and 51.64%) of them were female and married respectively. Additionally, half of them have>10 years of profession experience**.**
Figure (1): Shows that the highest percent (41.8%) of nursing staff had nursing diploma   degree followed by (32.8%) had bachelor's degree, while the lowest percent (0.8%) of them had master and doctorate in nursing.
Figure (2): Shows that the highest percentage (88.5%) of nursing staff are staff nurses followed by (8.2%) are head nurses. while the lowest percent (0.8%) of them are nursing directors.

Table (2): Reveals that the nursing staff highly perceived all dimensions of ethical leadership. However, the highest mean percentage (92.7%) was for leadership personality traits. While the total mean percentage of ethical leadership was 88.9%.
Table (3): Illustrates that the highest percentage (81.9%) of nursing staff nurses had a high perception level of ethical leadership and around one-fifth (18.03%) of them had a moderate perception level of workplace incivility.
Table (4): Reveals that the majority of nursing staff had low perception regarding all green management dimensions. However, the highest mean percentage (45,14%) was for green performance management

and evaluation dimension. While the total mean percentage of green management was 34.7%.

Table (5): Illustrates that the highest percentage (95.9%) of nursing staff nurses had low perception level of green management and (4.1%) of them had moderate perception level of green management.

Table (6): Reveals that most nursing staff had low perception regarding green psychological climate. However, the highest mean percentage (44%) was for Provide new suggestions and ideas about friendly practices for the environment in my organization. While the total mean percentage of green psychological climate was 31.76.

Table (7): Illustrates that the highest percentage (89.3%) of nursing staff nurses had low perception level of green psychological climate and (10.7%) of them had moderate perception level of green psychological climate.

Table (8): Shows that there was a significant positive correlation between ethical leadership and green management among staff nurses' participants.

Table (9): Shows that there was a significant positive correlation between ethical leadership and green psychological climate.

Table (10): Shows that there was significant positive correlation between green management and green psychological climate.

Based on the results from the green psychological climate questionnaire and the associated scales, there was a significant positive relationship with ethical leadership. Indicate a strong statistical significance, with the 95% confidence interval for the coefficient (B) ranging from (0.179 to 0.319). Illustrated that ethical leadership may enhance the psychological climate related to green initiatives.

Conversely, the Green Management Questionnaire scale shows no significant relationship. The confidence interval for this scale ranges from (0.052 to 0.108) which indicates that the impact of green management practices on the psychological climate is not statistically significant.

Discussion:

In recent years, with the increasing trend towards sustainable development, health care organizations have paid attention to environmental sustainability strategies. However, the implementation of these strategies depends on the ethical justifications of managers and the practice of green behaviors by employees that limit the bad impact on the environment and achieve organizational sustainability. **Baggia, et al., (2019).** Therefore, the current research aimed to study the effect of ethical leadership and green management on green psychological climate.

The research's results showed that the highest percentage regarding age ranged from 30-40 yrs. This means they are at a productive age. Also, the presented demographic profile aligns with existing evidence on gender imbalance and younger age distributions observed frequently in nursing samples specifically in Egypt as nursing profession is considered a feministic profession.

In addition half of the sample size have above ten years of experience in nursing profession which indicates that they were well prepared to apply different leadership styles in different situations and enable them to deal with the updated concept and approaches in the profession like green management and so on.

The actual study showed that most of participants highly perceived ethical leadership attributes this to the fact that the manager is the head of the pyramid in the place where he is located, and that all work-related issues ultimately come down to leader, and that there are many sensitive issues that should only be known to those in decision-making positions. If a leader is not maintaining work secrets will be unethical leader. This study congruent with study **(Al Shaer 2017)** indicate that all leaders work to motivate employees relies on transparency and integrity when evaluating employee performance. To maintain ethical practices through positive competition between them.

Many health care organization have taken notice of the benefits of an ethical leadership style; focusing on human values and being encouraging and helpful are acknowledged to have a beneficial effect **(Frazier & Fainshmidt, 2012).** Encouraging the green management behaviors is dependent on many variables, in the present study, ethical leadership was considered the main variable associated with it. As for ethical leadership, the current results demonstrated relatively high mean score, the Personality traits have a great influence on peoples' decisions and behavior, also ethical communication most influence on the attitude of nursing staff, these results are consistent with **Ali & Al-anwar (2022)** where Their mean of total ethical leadership was high also the study by **Brown & Treviño (2014)** In a multi-center study of over 300 nurses are consistent with current study, which revealed agreeableness and conscientiousness positively predicted ethical leadership perceptions (p<0.05).

On the contrary, **Barkhordari-Sharifabad & Mirjalili (2020),** where their results demonstrated that the level of nursing managers' EL was moderate from the perspective of nurses in comparison with the current study findings where level of nursing managers' EL was high (92.6%). So, designing programs which adopt such approaches in nursing

managers at all levels can assist in improving the organizational climate and therefore help nursing leaders to influence subordinates to adopt new approaches such as green management behaviors.

Regarding green management, the study finding regarding descriptive statistics across green management domains revealed low mean among the study sample and 34.7% of them exhibit low level of green management from their perception which indicates this result related that lack of green organizational culture related to green management to some extent the staff not oriented about environmental performance related to green management, also the organizational policies and practice not concerned on green management.

Despite the previous mentioned study's results are consistent with **Aly Abd-Elhamid & Gaber (2023) & Ibrahim, et al., (2023)** where their study sample revealed incompetent knowledge and low mean score for green management at pre-program phase. This is considered as an emphasis that the culture in some countryside governmental health organization is different from each other in urban health organization's financial resources for procuring environmentally sustainable products, or ambiguous environmental regulations.

Regarding the green psychological climate (GPC) which is considered as a predictor of pro-environmental behavior. The study findings revealed low mean for all GPC items with low mean percentage in the field of organizational behavior, organizational culture and climate are considered to be important contextual factors that influence nurses' attitudes and behavior, in general, nurses lack the motivation to act in ways that align with how they view the policies, practices, and procedures of their hospital. The nurses didn't participate in environmentally friendly programs and practices that enhance the healthy safe green.

In accordance with the previous mentioned, the study's findings demonstrate strong positive correlations between nurses' perceptions of ethical leadership (EL) and green management (GM), between EL and green psychological climate (GPC), and between GM and GPC. The correlation between EL and GM indicates that when nurses perceive their leaders who exhibit ethical behaviors and make decisions fairly, they also tend to view their hospital's environmental initiatives more positively nursing performance, relationship, compensation and reward. This aligns with last research by **Smith et al. (2019)** showing that ethical leadership promotes buy-in and support for organizational change efforts aimed at sustainability.

Also, there is a significant positive effect of ethical leadership on the green psychological climate.

Mayer et al., (2010) confirmed that the leader influences the perceptions and interpretations of the climate by the public. Therefore, calls have increased to investigate how ethical leadership affects the perceptions and interpretations of followers of their workplace **(Ko et al., 2018)**, especially since the results of some studies such as **(Khan et al., 2019; Saleem et al., 2020; 2021)** On the existence of a positive moral relation between EL and psychological climate. When employees observe the enthusiasm of ethical leaders to perform green behaviors, and their efforts to make the organization's climate greener.

The actual research revealed that there is significant positive correlation between green management questionnaire scale and GPC, agree with study in faculty of nursing by **Tawfik, et al., (2024)** concerning the green human resources management practices are more likely to have heightened psychological ownership, positively influencing their engagement in green behavior.

However, the findings contradict with **Jones (2020),** who found no relationship between frontline staff's perceptions of managerial ethics and their adoption of green behaviors. One potential explanation is that Jones' study was conducted in the manufacturing industry rather than healthcare. It may be that in a hospital setting, staff look more closely to leadership when evaluating new environmental programs. Overall, though, the strong positive correlations found here provide evidence that EL and GM facilitates GPC.

So, designing programs which adopt such approaches in nursing managers at all levels can assist in improving the organizational climate and therefore help nursing leaders to influence subordinates to adopt new approaches such as green management behaviors. Employees' environmental conduct determines whether an organization's environmental sustainability goals are met.

Conclusion:

In summary, the perception of ethical leadership and green management practices is likely to significantly influence the green psychological climate within healthcare settings. When nurses perceive both ethical leadership and strong environmental practices, it can lead to higher engagement in green behaviors and enhanced organizational commitment to sustainability.

Recommendations:

1. Integrate sustainability into core values to embed environmental sustainability into the organization's mission, vision and values
2. Develop and provide training programs that

emphasis the importance of ethics, sustainability, and environmental responsibility.

3. Implement green management practices to adopt environmentally friendly practices, such as reducing waste, conserving energy, and promoting sustainable resource use.

4. Foster a green psychological climate to encourage employee participation in sustainability initiatives, recognize and reward environmentally responsible behaviors, and promote environmental stewardship culture

5. Communicate sustainability goals and expectations to clearly articulate the organization's sustainability vision and expectations to employees.

6. Empower employees to act: provide resources, support and autonomy for employees to contribute to sustainability initiatives.

7. Recognize and reward sustainability efforts: Acknowledge and reward employees who demonstrate environmentally responsible behaviors.

8. Measurement Tools: Organizations may need to develop or adapt tools to measure nurses' perception of ethical leadership, green management practices, and green psychological climate to understand their influence on behavior. For future research

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