



## **Prosocial Leadership and Organizational Sustainability: Moderating Role of Nurses' Green Behavior**

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### **ABSTRACT**

**Background:** Prosocial leadership in a healthcare organization can effectively meet the needs of nurses by focusing on their career development and growth, which may encourage green behavior that improves the quality and safety of patient care, motivates, innovates, and increases satisfaction, in addition to promoting organizational sustainability within the workplace. **Aim:** Determine the relationship between Prosocial Leadership and Organizational Sustainability and Nurses' Green Behavior as a Moderating Role. **Setting:** The study was implemented at surgical, medical, endoscopy, and emergency units at Menofia International Liver Institute one of the governmental university hospitals, Menoufia Governorate. **Subjects:** A simple random sample of nurses (n=286) with at least one year of experience. **Instruments:** Three instruments were used; prosocial leadership scale, organizational sustainability scale, and nurses' green behavior questionnaire. **Results:** Staff nurses' responses to total levels of prosocial leadership and organizational sustainability were at a high level. However, the nurse's green behavior was at a moderate level. There was a statistically significant positive correlation between prosocial leadership and organizational sustainability [ $r = .963, p = .000$ ], and with nurses' green behavior [ $r = .922, p = .000$ ]. Also, a significant positive correlation was found between organizational sustainability and nurses' green behavior [ $r = .922, p = .000$ ]. **Conclusion:** There was a statistically significant positive correlation between prosocial leadership and organizational sustainability and with nurses' green behavior. **Recommendations:** Provide an educational intervention program for nurse leaders on the importance of pro-social leadership to help organizations reach sustainability objectives and how nurses' green behavior affects the quality of care they provide and to create a healthy work environment.

**Keywords:** Prosocial leadership, Organizational sustainability, & Nurses' green behavior.

### **Introduction**

Pro-social behaviors are socially acceptable actions intended to benefit individuals or

communities, which can be motivated by many factors such as empathy, altruism, and the desire to be loved from positive behavior through a system of reciprocity or one's value system in the way one

focuses on others. Social behaviors in healthcare organizations benefit the workplace, people-centered approaches can lead to better work outcomes, improved productivity, and performance, optimized performance chemistry, lower turnover meaningful identification with the organization's employers, and enhanced trust. Also, take advantage of creating social missions to attract talent. (Miller,2020).

Prosocial leadership is a set of values, beliefs, skills, and habits that facilitate the achievement of organizational objectives primarily by attending to the well-being and functioning of organizational members. Also, includes a set of intra- and inter-personal processes that allow leaders to dignify work, engage people, and inspire excellence Shiverdecker & LeBreton, 2019). Prosocial Leaders are driven by empathy and respond to it. They act for the benefit of their staff and those they pledge to serve, regardless of punishment or reward.” (Ewest, 2018)

In other words, two values often motivate leaders to act in ways that truly benefit society: empathy and altruism, according to Batson's theory which holds that empathy plays an important role in shaping a leader's personality. When an individual encounters someone in need, they must react or ignore their own feelings of empathy. The mediocre leader development process has two components. The first item is “expected representation”. It is a person's goals, or their ideal future self, or their personal identity. Personal identity is used in the formation of personal meaning, is instrumental in the formation of goals,

and is necessary for the formation of the moral self. The second part is “integration”. It is a dialectical thought process in which a person compares their current personal goals, formed in response to empathy, with their ultimate goals, such as being an agent. the projected face or moral identity they want to become (Batson,2014).

Organizational behaviors that promote social welfare are called pro-social behaviors. These are voluntary behaviors that nurses of an organization adopt in the course of their work and are intended to benefit the individual, group, or organization to which they are addressing. Examples of social behavior include behaviors such as helping, comforting, sharing, contributing, cooperating or volunteering, assisting proactively, responding to requests for help, and protecting the organization. Prosocial behavior in healthcare organizations is becoming increasingly important in the field of organizational behavior because it contributes to individual and organizational development. Extra-role behaviors have been shown to enhance reciprocity, cooperation, and solidarity in social relationships, promote nurses' well-being, and promote growth and sustainability in organizations (Peng, Tian, and Guo,2019).

Sustainability is a balance between the needs of today's generation and the needs of tomorrow's generation so that the next generation can meet their needs in the long term. Sustainability has become a top priority for many healthcare organizations around the world, offering long-term growth, financial sustainability, and competitive advantage (Kim and Hall, 2021). Sustainability

performance has become the prime concern worldwide, providing long-term opportunities for growth and development, financial viability, and competitive advantages (Kim and Hall, 2020).

Organizational sustainability has been gaining its rightful recognition and importance as it offers a competitive advantage and creates value for organizations, their stakeholders, and society (Bonini and Görner, 2011). Also, satisfy the requirements of current customers while considering the requirements of future generations “(Kim, Hessami, Faghihi, & Ford, 2012).

Sustainability has become an important research topic because of its implications for nurses and organizations in today's work environment. A sustainable management approach means reframing traditional thinking through different perspectives and emphasizing a collaborative rather than a competitive perspective. This means leading an organization not only towards economic growth but also towards social welfare and environmental protection, by harmonizing economic, environmental, and social goals (Cillo, Petruzzelli, Ardito, and Del, 2019).

Organizational sensitivity is the key to managing, promoting, and guaranteeing sustainable development in today's challenging and ever-evolving contexts. A new managerial mindset and new leadership style that emphasizes relationships, collaboration, and positive narrative in organizational contexts are essential to mobilize energy, confront challenges, and drive sustainable development and human well-being in

organizations (Pilar, Mihaela Enache, and Joan, 2020).

From this point of view, the healthcare organization is seen as a system of interdependent relationships in which stakeholders push it to act in an ethical, environmental, and socially responsible way. This interdependence strengthens the organization's sustainability and resilience. Corporate social responsibility (CSR) strategies and initiatives, along with the development of an organization's culture and values aligned with the sustainability model, form the foundation for sustainable organizational development. In addition to the sustainable approach, an organization should achieve performance through human resources policies and practices that focus on justice, development, and well-being, as well as respect for the environment (Cugueró-Escofet, Ficapal-Cusí, and Torrent, 2019).

Green behavior refers to positive attitudes toward the environment. This can include in-role and extra-role (voluntary) green behavior. In-role green behavior refers to formal green tasks that are an integral part of nurses' performance appraisals. On the other hand, additional green behaviors refer to voluntary green behaviors that go beyond an employee's official duties and are not included in their performance evaluation. Overall, empirical evidence shows that green human resources management has a positive impact on green mission behavior, nurse empowerment, and green job creation, as well as organizational environmental citizenship. (Fawehinmi et al., 2020).

Nurses' green behavior is one of many ways nurses can help protect the environment (George & Jayakumar, 2020). Therefore, the green behavior of nurses is a key factor and the best way to achieve healthcare environmental sustainability. For nurses, green behavior is personal behavior that is consistent with the goals of environmentally sustainable development, and the positive green behavior of leaders encourages the green behavior of employees (Li et al, 2020). Green behavior refers to any behavior that benefits the environment or minimizes damage to the environment. With the implementation of corporate sustainability strategies, employees' green behavior in the workplace is receiving more and more attention (Wang et al., 2018).

According to George and Jayakumar (2020), "green behavior" is one of the many ways staff can help protect the environment. This is why green behavior has long been considered one of the most important and best practices for achieving environmental sustainability. In the case of nurses, green behavior refers to an individual behavior that is in line with environmentally sustainable development objectives. The positive green behavior of leaders also drives employee green behavior (Li et al, 2021).

There are two types of nurse green behavior: task-related and proactive green behavior. Task-related green behavior is green behavior that employees engage in to perform core work tasks for the organization (e.g., fulfilling environmental protection duties, meeting environmental standards, etc.) Proactive green behavior, on the

other hand, is green behavior that employees engage in on their own initiative (e.g., doing double-sided printing on a regular basis, reminding colleagues to reduce their energy consumption, etc.) (Bissing - Olson et al., 2013).

Nursing green behavior has emerged as an important and growing field of study in organizational behavior. Nurses' green behavior is an environmentally friendly behavior that employees engage in within an organization. It refers to a particular type of behavior that is pro-environment in work environments. Nurses' green behavior helps organizations achieve sustainable development objectives and improve environmental performance. It also improves the performance and well-being of leaders and employees (Tian et al ,2020).

### **Significance of the study:**

As healthcare organizations face pressure to improve quality and efficiency while reducing costs, leaders are applying management techniques and tools used in manufacturing and other areas. Successful pro-social leaders appear to use a coaching leadership style, demonstrate empathy, and act in the best interests of their followers and those they are committed to serving, regardless of punishment or reward" (West, 2018). Nursing work is characterized by high levels of stress and workload, with nurses' green behavior being indicative of the effective and successful use of prosocial leadership approaches. By integrating sustainable practices, healthcare organizations can save money, improve patient outcomes, retain

nurses, and create a sustainable and equitable future for everyone.

The combination of all these factors, including pro-social leadership and organizational sustainability, is a key factor in determining nurses' green behavior. From this perspective, the aim of this study is to determine the relationship between pro-social leadership, organizational sustainability, and nurses' green behavior as a moderating role.

### **Aim of the Study**

The present study aimed to determine the relationship between pro-social leadership, organizational sustainability, and nurses' green behavior as a moderating role.

### **Research Questions:**

- What are nurses' perception levels regarding Prosocial Leadership, Organizational Sustainability, and nurses' green behavior?
- What is the relation between prosocial leadership and organizational sustainability?
- Is nurses' green behavior influence the relation between prosocial leadership and organizational sustainability?

### **Methods**

**Research Design:** A descriptive correlational research design was used to achieve the aim of the current study.

**Study Setting:** This study was conducted at the Menofia International Liver Institute, one of the government-affiliated university hospitals in

the Delta region of Egypt. The study was conducted in the following units: the surgical unit, the medical unit, the endoscopy unit, and the emergency unit

**Study subjects:** The study subjects included a simple random sample of nursing staff who met inclusion criteria "having at least a one-year experience in the study setting, approved to participate and available at the time of data collection. The sample size was calculated using the "Epi info program version 7", it was based on a variance of 5%, confidence level of 95%, and power of 0.80. The final number of study subjects included in the study was (286) working in surgical, medical, endoscopy, and emergency units at Menoufia International Liver Institute

**Data Collection Instruments:** This study utilized three instruments: the Prosocial Leadership Scale, the Organization Sustainability Scale, and the Nurses' Green Behavior Questionnaire. Personal data was also included.

### **Instrument I: Prosocial Leadership Scale**

It consisted of two sections as the following:

**Section I:** Personal data, was created by the researchers to collect the personal data (e.g., age, gender, marital status, department, education level, years of experience) of the participant nurses.

**Section II:** The Prosocial Leadership Scale (PLS) is an adapted version of Paula. et al. (2021) which was developed to evaluate Prosocial Leadership from the perspective of nurses. The

PLS consists of sixteen descriptive items divided into two subscales. These two subscales are classified as Prosocial Actions (12) and Prosocial Feelings (4). Each item is scored on a scale of 1-5, with 1 meaning "strong disagreement" and 5 meaning "strong agreement".

**Scoring of Prosocial Leadership Scale:** The overall prosocial leadership score ranged from 16 to 80. Low prosocial leadership scores (16 to 47) were classified as low, moderate prosocial leadership (48 to 63) as moderate, and high prosocial leadership (64 to 80) as high.

### **Instrument II: Organizational Sustainability Scale**

This instrument was developed by Balasubramanian & Balaji (2022) to evaluate the level of organizational sustainability among nurses and is composed of twenty-six descriptive items divided into six subscales. The items include financial sustainability (four items), governance sustainability (four), environmental management sustainability (five items), pollution control measures (four items), employee-related sustainability (four items), and public-related sustainability (five items). Nurses' response to each item was measured by a five-point rating on a Likert scale from '1' (strongly disagree) to '5' (strongly agree).

**Scoring of Organizational Sustainability Scale:** The overall score of this scale ranged from 26 to 130. Scores from 26 to 77 were classified as "low organizational sustainability", scores from 78 to 103 were classified as "moderate organizational sustainability", and scores from 104 to 130 were classified as "high organizational sustainability".

### **Instrument III: Nurses' Green Behavior questionnaire**

McConnaughy's (2014) created the Nurses' Green Behavior questionnaire to evaluate the Green Behavior levels of nurses. The questionnaire was composed of 40 descriptive items that were constructed and scored on a five-point scale (1 = very low extent, 5 = very high extent).

**Scoring of Nurses' Green Behavior:** The green behavior score ranged from (40 to 200). Low green behavior scores ranged from (40 to 121), moderate green behavior scores from (122 to 159), and high green behavior scores from (160 to 200).

**Method of Data Collection:** The agreement to carry out the study was secured from both the medical and nursing directors of the Menoufia International Liver Institute. All the instruments of the study were rendered into Arabic.

**Ethical Considerations:** All participant nurses were provided with verbal and written consent prior to the collection of any data. The purpose of the study was elucidated to participants, and data were subsequently collected by researchers. The anonymity and confidentiality of participants' data were safeguarded. All participants were provided with the assurance of voluntary participation in the study. Participants were informed of their rights to withdraw at any time without providing any justification.

**Pilot Study:** A pilot study was conducted on 10 percent of nurses (n = 29) who were not part of the study sample, to assess the feasibility and usability of the study instruments, to detect any

issues, and to estimate the time needed to complete the questionnaire. Additionally, the necessary modifications and clarifications of certain questions were conducted.

**Content Validity:** The data collection tools were reviewed by a panel of five experts (Professors of nursing administration, Menoufia University) to evaluate face and content validity as well as to verify relevance and adequacy. The experts' responses were presented in the form of a five-point rating scale (3-1) where (3) is strongly relevant, (2) is relevant, and (1) is not relevant. The changes were applied accordingly. The values of content validity for the instrument I, instrument II, and instrument III (99.3%, 99.4%, and 94.2%) respectively.

**Testing Reliability:** In order to assess the reliability of the three instruments, they were subjected to the Cronbach alpha coefficient factor test and achieved satisfactory results ( $\alpha = 0.988$ ,  $\alpha = 0.989$ , and  $\alpha = 0.888$ ) for the Prosocial Leadership Scale, the Organization Sustainability Scale, and the Nurses' Green Behavior Scale respectively.

### Data Collection Procedure

Participant nurses in various surgical, medical, endoscopy, and emergency units were provided with a questionnaire sheet to complete during work hours. All nurses were informed that the data collected would only be used for research purposes. The estimated completion time of the questionnaires was between 20 and 25 minutes. The study data collection phase ran for three

months, beginning on March 1, 2023, and concluding on May 31, 2023.

**Data Analysis:** The statistical package for the social sciences, SPSS (Society of Political Science v. 22), was employed to describe and summarize the data using descriptive statistics (means and standard deviations). A chi-squared ( $\chi$ ) statistic was employed to compare the observed and predicted frequencies of outcomes of a collection of occurrences or variables. A Pearson correlation was used to demonstrate the relationship between study variables, and a regression analysis was employed to evaluate the strength of the relationships between studied variables. A statistically significant p-value was defined as  $p < 0.05$ .

### Results:

**Table (1):** It showed that the majority of participating nurses' ages ranged from 30-40 years, and (76.9%) of them were female, and 92.3% were married. Only (38.5%) of nurses had a bachelor's degree, while 661.5% had a nursing technical institute degree. More than half (53.8%) had 5-10 years of experience.

**Table (2):** It illustrated that the total levels of nurse's perceptions about prosocial leadership and organizational sustainability were at high levels (3.69,  $SD=0.72$ ) and (3.90,  $SD=.99$ ), respectively. However, the nurse's green behavior was at a moderate level (3.24,  $SD=0.44$ ).

**Table (3):** It indicated that there was a significant positive correlation between prosocial leadership and organizational sustainability [ $r = .963$ ,  $p = .000$ ], and with nurses' green behavior [ $r$

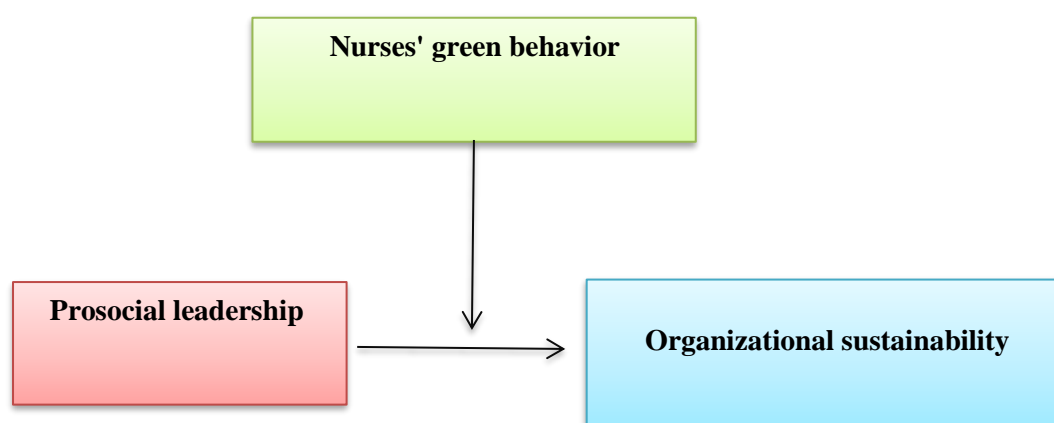
$=.922, p = .000]$ ". This means that increases or decreases in prosocial leadership significantly relate to increases or decreases in organizational sustainability and nurses' green behavior. Moreover, a significant positive correlation was found between organizational sustainability and nurses' green behavior [ $r = .922, p = .000$ ].

**Table (4):** It showed that there was a statistically significant effect of prosocial leadership on organizational sustainability,  $AR2=.927, F(1, 284) = 3631.76, p < .001$ . This means that the existence of a relationship between the independent variable (prosocial leadership) and the dependent variable (organizational sustainability) was supported.

**Table (5):** It illustrated that there was a statistically significant moderation role of nurses' green on the relationship between prosocial leadership and organizational sustainability. At

model '1', one variable was included: prosocial leadership. This variable accounted for a significant amount of variance in organizational sustainability,  $AR2=.927, F(1, 284) = 3631.76, p < .001$ . While, at model '2', the interaction term between prosocial leadership and nurses' green behavior was added to the regression model, which accounted for a significant proportion of the variance in organizational sustainability,  $\Delta R2 = .935, F(2, 283) = 2041.814, p < .001$ .

To sum up, the existence of a moderation effect of nurses' green behavior on the relationship between the independent variable (prosocial leadership) and the dependent variable (organizational sustainability) was supported. Moreover, the model suggests that prosocial leadership and nurses' green behavior explain roughly 93.5% of the variation in organizational sustainability.



**Figure (1):** The Explanatory conceptual frame work of the current study variables as explained by researchers

**Table (1):** Personal data of studied staff nurses (n= 286)

Socio- demographic data		N	%
Age	20-30	88	30.8
	30-40	176	61.5
	>40	22	7.7
Gender	Male	66	23.1



	Female	220	76.9
<b>Marital status</b>	Married	264	92.3
	Not married	22	7.7
<b>Department</b>	Surgical units	132	46.2
	Medical units	66	23.1
	Endoscopy units	44	15.4
	Emergency unit	44	15.4
<b>Educational Level</b>	Nursing technical institute	176	61.5
	Bachelor degree in nursing	110	38.5
<b>Years of Experience</b>	< 5	88	30.8
	5-<10	154	53.8
	10-15	44	15.4

Table (2): Staff nurses' perception of the studied variables (n=286)

Three Variables	Mean	SD	Chi-Square ( $\chi^2$ )	p-value
<b>Prosocial Leadership</b>	<b>3.69</b>	<b>.72</b>	211.54	.000**
• Prosocial Feeling	3.67	.70	230.15	.000**
• Prosocial Action	3.71	.76	211.54	.000**
<b>Organizational Sustainability</b>	<b>3.90</b>	<b>.99</b>	133.69	.000**
• Financial Sustainability	3.90	.97	77.85	.000**
• Governance Sustainability	3.85	.99	44	.000**
• Pollution Control Sustainability	3.94	1.07	77.85	.000**
• Employee Related Sustainability	3.88	1.16	77.84	.000**
• Public Related Sustainability	3.86	.99	89.69	.000**
• Environmental Management Sustainability	3.94	.99	44	.000**
<b>Nurses' green behavior</b>	3.24	.44	69.38	.000**
• Working sustainability	3.18	.40	133.69	.000**
• Avoiding harm	3.11	.36	81.23	.000**
• Conserving	3.42	.67	133.69	.000**
• Influencing others	3.18	.43	110	.000**
• Taking initiative	3.30	.54	89.69	.000**
<b>Average Score (Pallant, 2019) SD (standard deviation)</b>				
Low: 1.00 to 2.33. Moderate: 2.34 to 3.66. High: 3.67 to 5.00				
** High Significance at P < 0.005				

**Table (3): Correlation between Prosocial leadership, Organizational sustainability, and Nurses' green behavior (n=286)**

Study Variables		Prosocial leadership	Organizational sustainability	Nurses' green behavior
<b>Prosocial leadership</b>	Pearson Correlation	1	.963**	.922**
	Sig. (2-tailed)		.000	.000
<b>Organizational sustainability</b>	Pearson Correlation	.963**	1	.922**
	Sig. (2-tailed)	.000		.000
<b>Nurses' green behavior</b>	Pearson Correlation	.922**	.922**	1
	Sig. (2-tailed)	.000	.000	
**. Correlation is significant at the 0.01 level (2-tailed).				

**Table (4): Simple regression analysis for prosocial leadership effect on organizational sustainability (n=286).**

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	258.573	1	258.573	3631.76	.000
	Residual	20.220	284	.071		
	Total	278.793	285			
Model Summary						
Model		R	R Square	Adjusted R Square	Std. Error of the Estimate	
1		.963	.927	.927	.26683	
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.218	.086		-14.130	.000
	Prosocial leadership	1.383	.023	.963	60.264	.000
Predictors: (Constant), Prosocial leadership						
Dependent Variable: organizational sustainability						

**Table (5): Hierarchical multiple regression analysis for green behavior effect on prosocial leadership-organizational sustainability relationship (n=286)**

ANOVA <sup>c</sup>									
Model		Sum of Squares	Df	Mean Square	F	Sig.			
1	Regression	258.573	1	258.573	3631.760	.000a			
	Residual	20.220	284	.071					
	Total	278.793	285						
2	Regression	260.725	2	130.362	2041.814	.000b			
	Residual	18.069	283	.064					
	Total	278.793	285						
a. Predictors: (Constant), prosocial leadership									
b. Predictors: (Constant), green behavior, prosocial leadership									
c. Dependent Variable: organizational sustainability									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.963a	.927	.927	.26683	.927	3631.760	1	284	.000
2	.967b	.935	.935	.25268	.008	33.700	1	283	.000

## Discussion:

Organizations are increasingly recognizing the ethical and strategic importance of sustainability, and a growing number of employees are motivated, supported, or required to take action in an environmentally responsible manner. Sustainability is not a result of the implementation of strategies, policies, or practices; rather, it is a result of employee engagement. Recent research has highlighted nurses' green behavior as a bridge between prosocial leadership and organizational sustainability.

**Concerning Nurses' perception regarding prosocial leadership:** the results of this study demonstrate that the overall level of nurses' perception of prosocial leadership is high. This may be attributed to their involvement in decision-making and leadership styles, which typically involve nurses in the formation of quality teams or crisis teams. Additionally, staff nurses strive to meet organizational objectives and communicate with leaders, and their leaders trust and empower them to share the hospital's vision and objectives. This current finding was congruent with the study of Mekawy (2023) who concluded that more than half of them had high perceptions regarding other

dimensions of environmental sustainability practice. Also, Luthufi et al., (2021) found that involvement and communication as well as supervisory support through prosaically leadership, as dimensions of nurses' perception of the human resource management system, could significantly influence their act of prosaically organizational behavior.

In addition, Feather et al. (2018) found that pro-socially leader behaviors affect the social function of the workplace and provide insights into the provision of high-quality care. Guinot (2016) also found that organizational functioning is affected. This calls for a re-evaluation of current leadership paradigms by instilling a pro-social approach. It encourages people to be more altruistic, cooperative, and compassionate towards others and to care for their well-being.

**Concerning Nurses' perception regarding organizational sustainability:** the findings demonstrate that the overall level of nurse perception of organizational sustainability is high. This may be attributed to their involvement in organizational development and sustainability by participating in strategic planning, visioning, decision-making, and resource mobilization. This is consistent with the findings of Frostenson et al. (2022), which suggested that organizational sustainability identity was more of a social construct, based on the perception of core operations as "sustainable in themselves" and customer-centric work that is perceived as providing sustainable solutions.

This is in line with the findings of the Afzal et al., (2022) study, which highlights that the sustainability performance of organizations is positively affected by their financial sustainability and pollution control sustainability, as well as their business strategies. Elg et al. (2021) found that employees have either a proactive or reactive attitude towards sustainability. Lee et al. (2017) also found that employees' attitudes towards their jobs can have an impact on organizational sustainability performance, while creating environmental sustainability is also an important factor in improving sustainability performance. This is in contrast to the findings of the Mekawy study (2023), which found that approximately half of staff nurses had a positive perception of all dimensions of the organization's sustainability practice. While, Leppänen et al., (2022) found that sustainable development was poorly known among nurses and nurse managers.

**Concerning Nurses' perception regarding nurses' green behavior:** this study revealed that overall levels of nurse perception of green behavior were moderate. This could be attributed to the fact that nurses are essential in the implementation of sustainable practices to preserve an environment that does not endanger future generations. However, there is no clear workplace policy to guide nurses in this process, and they are not aware of their obligation to reduce environmental hazards in order to improve the sustainability of the workplace. Furthermore, the hospital management did not provide any training

sessions for staff nurses on the most pressing issue facing the world.

Iqbal et al. (2018) and Ones et al. (2017) found that nurses' green behaviors are strongly related to sustainability. They used the critical incidents methodology to create five categories of employee green behaviors: transforming, avoiding harm, conserving, influencing others, and taking initiative. This is in line with Ciocirlan's (2017) findings that nurse's green behaviors don't always make sense in the bigger picture.

The study found a statistically significant correlation between the level of professional leadership and the level of organizational sustainability, as well as with the level of nurses' green behavior. This means that a significant increase or decrease in professional leadership significantly correlates to an increase or decrease in organizational sustainability. The study also found a strong positive correlation between corporate sustainability and the level of green behavior among nurses. The positive correlations indicated that high utilization and application of the professional leadership approach resulted in high levels of green behavior and ongoing organizational sustainability, while the opposite was true.

This result was consistent with the findings of Luthufi (2021) and Feather (2018) that organizational sustainability is lacking, inequity among employees is increasing, and trust among employees is declining, all of which present unprecedented challenges to the organization's

functioning. This necessitates a re-evaluation of the prevailing pro-social leadership. Additionally, Feather et al. (2018) emphasized that pro-social behaviors shape the social function of the workplace and provide insight into the provision of quality care. The implications for nursing management; Nurse managers should be aware of the impact of leadership style and work environment characteristics that motivate employee engagement in pro-social behaviors. This additional voluntary effort by nursing staff may contribute to the improvement of organizational sustainability.

**Concerning the correlation among pro-social leadership, organizational sustainability, and nurses' green behavior:** The present study clarified that a moderation effect of nurses' green behavior on the relationship between the independent variable (pro-social leadership) and the dependent variable (organizational sustainability) was supported. Moreover, the model suggests that the pro-social leadership and nurses' green behavior explain roughly 93.5% of the variation in organizational sustainability. This was supported by Nisar et al (2021) and Kim et al., (2019) whose findings declared that organizational sustainability does not come directly from applying pro-social leadership strategies, policies, or practices; rather it depends on employee efforts, focused on employee green behavior as a mediator between leadership strategies (pro-social leadership) and organizational sustainability.

This finding is in line with what Luthufi et al. (2021) show that lack of organizational

sustainability, growing inequality among employees, and declining trust between them increasingly pose challenges. unprecedented challenges in the organization's operations. This requires rethinking dominant leadership in a trivial way. Similarly, Feather et al (2018) highlight that mundane behaviors impact the social functioning of the work environment and provide insight into the delivery of quality care. Implications for Nursing Managers Nurse managers should recognize the influence of leadership styles and work environment characteristics that encourage employees to engage in mundane behaviors. These additional voluntary efforts by nurses can improve organizational sustainability.

Concerning the relationship between organizational sustainability and their socio-demographic data. The results of this study highlight that there is a significant association between organizational sustainability and the socio-demographic characteristics of the nurses studied. In the same vein, Alboliteh et al (2021) highlight that the level of organizational sustainability varies significantly depending on the type of management position and years of experience.

In the same line, Weerakoon et al (2021) showed that the level of green behavior varies significantly depending on the employee's educational level.

In contrast, the results of Katz et al. (2022) demonstrated weak associations between employee green behavior and age, seniority, and education

level, and no significant associations with gender. Furthermore, Weerakoon et al (2021) showed no significant differences in employee green behavior levels depending on employee gender and age. Furthermore, D'Mello et al. (2012) found inconsistent relationships between ecological behavior and educational attainment, depending on the type of ecological behavior considered.

## Conclusion

A statistically significant positive correlation between total pro-social leadership and total organizational sustainability was observed, as well as a statistically significant correlation between total nurses' green behavior and total organizational sustainability. Logistic regression analysis further revealed that pro-social leadership was a highly significant predictor of organizational sustainability, while nurses' green behavior was a significant predictor of total organizational sustainability.

## Recommendations

Provide an educational intervention program for nurse leaders on the importance of pro-social leadership to help organizations reach sustainability objectives and how nurses' green behavior affects the quality of care they provide and to create a healthy work environment.

It was suggested to provide workshops on organizational sustainability and nurses' green behavior guidelines to staff nurses in order to enhance their professionalism.

Create and sustain a pro-social, high-performance experience culture that impacts the

well-being of nurses and tends to lead to increased organizational sustainability and green behavior among nurses.

Developing strategies for nurses and their leadership to implement strengths-based feedback methodologies that promote organizational sustainability and green nurse behavior.

Empowering an organization's work culture that promotes the implementation of pro-social leadership to achieve organizational sustainability objectives and encourages green behavior among nurses by addressing professional development needs and reducing stress levels.

Ensure specific structural and social parameters in the workplace that nurse leaders can adjust to improve nurses' involvement in pro-social organizational practices, and organizational sustainability and ultimately improve the social performance of nursing teams.

In addition, future studies will need to look at the impact of nurses' green behaviors on patient outcomes (e.g., patient satisfaction, stay time, readmission rate).

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