

▪ **Basic Research**

Effect of Educational Program about Sustainable Leadership for Nursing Managers on Sustainable Development Behaviors and Organizational Attractiveness

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Abstract

Background: Sustainability in the social, economic, and environmental spheres is a challenge facing the globe today. Effective leadership is vital for fostering sustainable practices across society and organizations while driving economic growth. Nursing sustainable leadership emphasizes generating current and future profits for health organizations, enhancing organizational appeal, and advocating sustainability values at individual, organizational, and societal levels. **Aim:** Evaluate the effect of educational program about sustainable leadership for nursing managers on their sustainable development behaviors and organizational attractiveness: **Design:** A quasi-experimental research design was utilized. **Setting:** The study was conducted in all (36) units at Benha University Hospital located in Qaluobia Governate, Egypt. **Sample:** The total number of nursing managers was (110), which includes the following: (1) Nursing Director, (2) Assistant Nursing Director, (4) Supervisors, (36) Head Nurses, and (67) Assistant head nurses. **Tools:** The following four questionnaires were utilized; Firstly: Sustainable Leadership Knowledge, Secondly the Sustainable Leadership Practice Self-report Questionnaire, Thirdly: Sustainable Development Behaviours Questionnaire, and finally tool: Organizational Attractiveness Questionnaire. **Result:** About one-third (31.8%) of nursing managers had adequate knowledge total levels in the pre program phase while after implementing of the educational program it was raised to 68.2% and in follow up phase to 75.5%. Concerning to sustainable leadership practice 14.5% had good total levels of practice in pre program while in the immediate post and follow up program phases, it was improved and raised to (70.9% & 67.3%) respectively. Concerning to nursing managers' sustainable development behaviors 14.5% of nursing managers' had a high total levels in pre program while in immediate post and follow up phases, it enhanced and raised to (72.7% & 63.6%) respectively. Concerning organizational attractiveness as reported by nursing managers 17.3% had high level in pre program and raised to (68.2% & 63.6%) at immediate post and follow up phases respectively. **Conclusion:** The implementing of the educational program led to improve in knowledge and practice of nursing managers regarding to sustainable leadership. Additionally there was a statistically significant positive correlation between knowledge and practice of sustainable leadership scores with sustainable development behaviors and organizational attractiveness scores. **Recommendation:** Fostering organizational culture which contributes to the growth of the concept, goals and strategies of health care sustainability and sustainable leadership to maintain sustainable development behaviors and organizational attractiveness. and implementing health care sustainability and sustainable leadership goals, principals, core competencies, attributes and applications for enhancing standards and work capacity through periodic workshops.

Keywords: Nursing Managers, Organizational attractiveness, Sustainable development behaviors, and Sustainable leadership.

Introduction:

The globalization of the world economy poses continuous challenges not only for businesses and governments worldwide. The 17 Sustainable Development Goals aim to tackle global issues such as poverty, unemployment, gender disparities, income inequality, and environmental threats. These goals are founded on three pillars: economic prosperity, environmental sustainability, and social harmony. They form part of the 2030 agenda for sustainable development, striving to ensure that development doesn't compromise the ability of future generations to meet their needs (Tablawy, 2018; Murtada & Al-Zarah, 2022). With *Egypt's Vision 2030* and significant scientific advancements, achieving these goals necessitates a distinct qualitative leadership to propel the nation towards its ambitious vision. The rapid transformations across economic, social, environmental, and technological domains also present challenges for educational institutions (Holden et al., 2017; Elshall et al., 2022).

The effectiveness of the health care organizations and the personnel are positively impacted by competent work management. Thus, managers need to focus on the methods and strategies for growing the organisation in order to make it sustainable (Dahiru, et al., 2023). Sustainable leadership entails leading with accountability to individuals, groups, and organizations while considering environmental, social, and economic sustainability principles within the community, organization, or group. It promotes the effective application of sustainability concepts, environmental collaboration, successful learning, teaching rooted in sustainability principles, and fostering staff members' self-expression (Huom et al., 2023; and Pushpalatha, 2023).

Sustainable leadership refers to sharing accountability and responsibility in order to prevent environmental infractions and wasteful loss of financial and human resources (Xuecheng et al., 2022). Sustainable leadership has various dimensions that are a prerequisite for achieving sustainable development's objectives, which include handling challenging global issues, preserving learning and success sustainability, ensuring social and environmental sustainability and wellbeing of future generations, having a future vision, promoting innovation, building a sustainable leadership team. It is possible for managers to come to an agreement and have a change of mind about sustainability. Both of them greatly empower their staff members and have an effect on them. In this way, Managers that prioritise sustainability exhibit empathy; they show concern for their staff, look for opportunities for professional growth and development and foster positive emotional bonds with them (Sengur, 2023).

Sustainable leaders must develop and implement several essential habits and behaviors to succeed. These encompass grasping systems and interdisciplinary methods; possessing emotional intelligence and compassion; adopting a values-driven approach to influence culture; having a distinct vision for effecting change; fostering inclusivity to build trust; embracing innovation and radical thinking; and maintaining a long-term outlook on their actions' impacts (Elfalafly and Albrolosy, 2022; Lukwago, et al., 2022). To ensure sustainability across health care organizations, leaders must also put in place a variety of measures, such as staff development and training programmes, proactive efforts to maintain friendly workplace relationships, strategies for staff retention, attractiveness, a change in compensation strategies to prioritize contributions to innovation and customer loyalty, advocacy for environmental and social responsibility, fostering transparent communication with diverse stakeholders while carefully weighing and accommodating their interests, and cultivating a unified vision for the organization's objectives (Thomas et al., 2020; Boeske, 2023).

Sustainable development behaviors, which generate over the long run value for all stakeholders which include social, environmental, economic and next generations as a whole, are currently a significant issue in many health care organisations and are receiving widespread

attention worldwide. Ethics-based principles are equally essential for sustainability and leadership. Sustainable leadership must incorporate ethical values and take into account social and environmental issues. It also requires integrity in behaviour and values for the ongoing development of sustainable growth. Environmental and social awareness are essential components of sustainable leadership (**Silalayi et al., 2018; Dahiru et al., 2023**). As organizations strive to become more attractive, the idea of environmental sustainability is becoming more and more important in shaping their work strategies, cultures, and practices. Organizations are becoming increasingly conscious of the significance of managing and protecting the environment since it affects their reputation and corporate image, especially as environmental issues gain traction on a global level (**Coelho et al., 2022**).

Effective leadership is crucial for achieving sustainable development. When staff feels supported and treated fairly by their supervisors, they become frontline advocates, actively contributing to the realization and execution of leadership goals and values. This engagement significantly impacts organizational performance. Sustainable leadership yields numerous positive outcomes, such as maintaining organizational integrity and reputation, enhancing organizational attractiveness, improving patient satisfaction, ensuring stable financial operations, fostering innovation through investment, creating long-term value for stakeholders, lowering operational expenses, and bolstering competitiveness in an ever-changing global landscape (**Alan, 2023**).

Health care organisations have realised in recent years that attracting and retaining talent is largely dependent on their staff' attractiveness to new staff members. The best talent will gravitate towards workplace with a favourable and strong prestige and reputation because individuals desire to work with organisations with such a reputation. Thus, workplaces that make themselves more appealing to potential staff members are using a successful tactic. The process by which a prospective staff determines that an organisation is the greatest place to work is known as organisational attractiveness, sometimes known as "staff attractiveness" (**Ahamad, 2019; Penela et al., 2023**).

Organizational attractiveness is the degree to which employees believe that an organization is a desirable place to work. Attracting potential candidates increases staff's ability to compete both locally and internationally, which gives the organisation a competitive edge and makes it easier to find candidates. A increasing number of academics and practitioners are also interested in organizational attractiveness because of the high expenses associated with employing new employees and the declining trend in staff tenure. These factors make choosing, training, and retaining applicants necessary staff simultaneously look for purpose in their work (**Guillot-Soulez, et al., 2022**).

Staff attitudes like motivation, work satisfaction, dedication, loyalty, and retention are all impacted by how appealing the organisation is to work for. Attractive businesses can maintain their competitive advantage by hiring competent employees more easily (**Noailles and Viot, 2021; Penela, et al., 2023**). Organizational attractiveness has various dimensions to be achieved as improving workforce skills, health and safety at workplace, supported balance between work and life, achieving equity and loyalty in workplace. Organizational attractiveness does not appear to be primarily determined by any objective measurement but rather by prospective staff' subjective perceptions of the organization and its qualities (**De Waal, 2021; Krys, and Konradt, 2022**).

The significance of study

Sustainability has emerged as a dominant theme in the 21st century. Evidence indicates that effective leadership is crucial for implementing sustainable development initiatives. Given

on-going challenges like dwindling natural resources, environmental degradation, and social inequality, there's a need to better align efforts with societal expectations. Addressing global environmental, social, and economic issues necessitates adopting new perspectives and innovative solutions. Unfortunately, many sustainability training programs overlook the importance of leadership and soft skills in advancing sustainability goals, leaving the integration of sustainability into leadership roles largely unexplored. Additionally, the relationship between sustainability and responsible leadership remains unclear (**Badawy, 2021; Foulker et al., 2021**).

Sustainable leadership is a key component of sustainable development in the context of organizations. Recent literature makes it clear that it is very significant for managers if they want to be sustainable and smart, to attempt involving the staff in organizational life through effective team work, organizational climate and culture and should be people centred and resource based, and there has been much discussion of a need for a new paradigm relevant to leadership development within organizations. The health care organization puts various new goals into the standardized agenda, which has been focused so far on leading to raise productivity, safety, quality and organizational attractiveness (**Silalayi, et al., 2018; Blind, and Heb, 2023**). Moreover, based on the researchers' clinical experience and interactions with nursing managers during nursing students' practical training at Benha University Hospital, it was noticed that nursing managers do not adapt their practices and behaviors to sustainable development, They don't handle sustainability in a way that detracts from its sustainability focus. So that this study was carried out to evaluate the effect of educational program about sustainable leadership for nursing managers on sustainable development behaviors and organizational attractiveness at Benha University Hospital.

Aim of the study

The current study aims to evaluate the effect of educational program about sustainable leadership for nursing managers on sustainable development behaviors and organizational attractiveness.

Research hypotheses: -

It hypothesized that; The implementation of the educational programme would enhance the sustainable leadership knowledge and practice of nursing managers, hence positively affect their organisational attractiveness and sustainable development behaviours.

Subjects and Methods:

Research Design:

A quasi experimental research design was used to conduct the present study.

Setting:

The present study was implemented in (36) units at Benha University Hospital located in Qalubia Governate, Egypt. Hospital units capacity were (600) beds. It composed of three separate buildings; Surgical building comprised of 10 units (160 beds), Medical building consists of 24 units (430 beds), and the Ophthalmology building included 2 units (10 beds).

Sample:

The study sample included all nursing managers (110) who are accessible at the time of the study which consisted of (1) nursing director, (2) assistant nursing director, (4) supervisors, (36) head nurses, and (67) assistant head nurses.

Tools of data collection:

The following four tools were utilized to collect the needed data for the present study:

1) The First Tool: Sustainable Leadership Knowledge Questionnaire

A structured questionnaire was developed by the researchers after reviewing the related literature (**Al-Jawdah, & Al Shamasi, 2022; Mohamed, 2023; Olaleye et al., 2023**) It composed of two main parts. **First part:** Nursing managers' personal and job data including;

(Department, age, gender, marital status, years of experience, job position, educational qualification, and attending educational courses). **Second part:** Sustainable Leadership Knowledge Test: To assess nursing managers' knowledge about sustainable leadership in their work settings throughout program phases, it contained of (65) questions categorized under eight main domains as follows: 1- Concepts of sustainability and leadership (6 questions), 2- goals of sustainable development and health care sustainability (9 questions), 3- importance and benefits of sustainable leadership (6 questions), 4- dimensions of sustainable leadership (9 questions), 5- principles of sustainable leadership (8 questions), 6- core competencies of sustainable leadership (10 questions), 7- approaches of sustainable leadership (10 questions), and finally; challenges and barriers of sustainable leadership (7 questions).

The scoring system:

The question were scored as "Zero" for do not know or incorrect answer and "One" for the correct answer. The total scores were 65, and knowledge was considered inadequate if scores was less than 60% and adequate if the percent was 60% or more. Mean and standard deviation were computed and subsequently transformed into percentage . **(Ebraheem, et al., 2018)**

The total score:

- Inadequate knowledge if score less than 60% that represent (0-38 scores)
- Adequate knowledge if score equal or more than 60% that represent (≥ 39 -65 scores)

2) The Second Tool: Sustainable Leadership Practice Questionnaire:

A self-reported questionnaire was constructed by the researchers after reviewing the relevant literature **(Alkhamaiseh, and Abu El Ela, 2022 ; Mahmoud, 2022; Al-Bakri, 2023)** to assess nursing managers' sustainable leadership practice in their workplace settings throughout educational program phases. It contained of (60 items) classified under eight basic domains as following: 1- Sustainability of learning and success (8 items), 2- future vision (7 items), 3- building a sustainable leadership team (10 items), 4- social and environmental responsibilities (6 items), 5- talent management and creativity (6 items), 6- human resources professional development (9 items), 7- legal and ethical behaviors (7 items), and lastly ; organizational culture (7 items).

Scoring system:

The nursing managers' replies were measured by using a three-point Likert Scale. "Rarely" as (1). "Sometimes" as (2) and "Always" as (3). After calculating the mean and standard deviation and converting them into a percentage, the total score was 180. **(Ebraheem, et al., 2018)**

- Poor sustainable leadership practice total level if the percentage was $< 60\%$ which equals 1-107 scores.
- Average sustainable leadership practice total level if percentage ranged from $60\% - < 75\%$ which equals 108- 134 scores.
- Good sustainable leadership practice total level if percentage was $\geq 75\%$ that equals ≥ 135 -180 scores.

3) The Third Tool: Sustainable Development Behaviors Questionnaire

It was constructed by the researchers after reviewing the literature **(Jahanshahi, et al., 2019; Sorour, et al., 2021; Elshall, et al., 2022)** to assess sustainable development behaviors as reported by nursing managers in their workplace settings throughout educational program phases. It composed of (30 items); that classified under four main domains; 1- Environmental sustainability (12 items), 2- social sustainability (6 items), 3- economical sustainability (5 items), and finally; personal attributes (7 items).

Scoring system:

The nursing managers' replies were evaluated by using a three-point Likert Scale. "Rarely" as (1) "Some times" as (2) and "Often" as (3). After calculating the mean and standard

deviation and converting the results into a percentage, there were 90 total scores. (Mohamed, et al., 2019)

- Low sustainable development behaviors level if the percentage was <60% which equals (1-53 scores).
- Moderate sustainable development behaviors level if ranged from 60%-<75% which equals (54-67 scores).
- High sustainable development behaviors level if the total percentage was $\geq 75\%$ equals (68-90 scores)

4) The Fourth Tool: Organizational Attractiveness Questionnaire

It was constructed by the researchers through reviewing the literature (Al-Shami, 2014; Al-Shami, 2019; Penela, 2019) to assess organizational attractiveness as reported by nursing managers in their workplace settings throughout program phases. It contained of 50 items that classified under seven basic dimensions; as follows: 1- Improving Skills of Nursing Workforce (6 items), 2- Health and Safety at Workplace (6 items), 3- Supported Balance between Work and Life (5 items), 4- Equity OR Equal Work Opportunities (7 items), 5- Nursing Workforce Diversity (6 items), 6- Loyalty in Workplace (12 items), and finally 7- Match Values (8 items).

Scoring system:

The nursing managers' replies were evaluated by using three - point Likert Scale. "Not important" as (1), "Somewhat important" as (2) and "Important" as (3). After calculating the mean and standard deviation and converting into percentages, the total score was 150.

(Mohamed, et al., 2019)

- Low level of organizational attractiveness if the percentage was <60% that equals (1-89 scores).
- Moderate level of organizational attractiveness if ranging from 60 %-< 75% that equals (90-112 scores).
- High level of organizational attractiveness if the total percentage was $\geq 75\%$ that equals (113-150 scores)

The validity and reliability of study tools:

The Validity:

In order to ensure the study's clarity, viability, and applicability, a jury group of five experts in the field of nursing administration from various nursing faculties at various universities reviewed the four tools: two professors of nursing administration at Ain Shams University, two professors of nursing administration at Tanta University, and one professor of nursing administration at Menofia University. In light of the experts' insightful feedback, changes were made at the end, including changing a few phrases to clarify unclear passages and give them the best possible interpretation.

The Reliability:

Each tool's reliability was found to be moderate to high by using the Cronbach's Alpha Coefficient test. The internal consistency of first tool's was (0.913), followed by that of the second, (0.896), the third, (0.879), and the fourth, (0.895).

The pilot study:

The pilot study was conducted on (11) nurse managers, or 10% of the entire study subject in order to evaluate the tools' clarity, objectivity, practicality and feasibility and also to estimate the needed time to fill out the tools, which varied from 45 to 60 minutes. By the end of July 2023, it was completed. Since no alterations were done, the pilot study was integrated into the main study subject.

The Field work:

- After outlining aim of the study, a formal letter expressing permission to perform it was received from the Dean of Benha University's Faculty of Nursing and given to the Director of Benha University Hospital.
- The present study took almost seven months, from the start of July 2023 to the end of January 2024.

The preparation phase:

- The researchers developed and constructed the tools of data collection for the study and sustainable leadership educational programme by reviewing related literature and theoretical understanding of numerous elements concerning the issue of the current study. Tools are being translated into Arabic to aid in comprehension and are being presented to nursing managers in Arabic.
- The program's development was predicated on the needs' context, which was determined by baseline data obtained from the tools' final design. Furthermore, the programme was developed using the results of an assessment of the knowledge and practice of sustainable leadership among nursing managers, which was completed just before to the initiation of the training programme. together with a review of relevant literature. Subsequently, the identified needs and this knowledge were translated to create the educational programme for sustainable leadership.

The sustainable leadership educational program:

The following topics are covered in the educational programme for sustainable leadership:

- Concepts of sustainability, sustainable development, leadership, and sustainable leadership.
- Goals of sustainable development and health care sustainability.
- Importance of achieving workplace sustainability and sustainable leadership.
- Principles of sustainable leadership.
- Core competencies of sustainable leadership.
- Dimensions of sustainable leadership.
- Approaches of sustainable leadership.
- Attributes of sustainable leadership.
- Models and styles of sustainable leadership.
- Barriers of sustainable development and sustainable leadership and how to overcome these barriers.
- Relation between sustainability, sustainable leadership, and organizational attractiveness.
- The process of creating and developing the nursing managers' sustainable leadership educational programme began with assessment and continued through phases of planning, implementation, and evaluation to give nursing managers a chance to enhance their knowledge and practice in sustainable leadership.

Assessment Phase:

- The researchers met with the nursing managers and discussed the purpose and nature of the study as well as how the questionnaires should be completed. Either individually or in small groups, this was accomplished. Additionally, the nursing managers were divided into six groups based on the location of their departments; two groups had 19 nurse managers and the remaining six groups had 18 nurse managers individually.
- Before the educational programme was implemented at the end of July 2023, the researchers gave the participating nursing managers questionnaires to complete during their morning and afternoon shifts, which were predetermined by the head of each department based on the nature and amount of the work . This was done to get their support and guarantee the continuation of patient care.

The Planning Phase

- The educational programme was constructed to enhance nursing manager's knowledge and practice about sustainable leadership based on baseline data gathered during the pre-test program phase and study of relevant literature in the form of published Arabic guidebooks. It took about three weeks at August 2023.

The Implementation Phase

- The educational programme was implemented at Benha University Hospital in the aforementioned study units. It was conducted at August 2023. The time required to achieve the program objectives were 30 hours. The educational programme was covered 15 days with 30 hours distributed as: 15 sessions, 2 hours/session, 3 days/week.
- Using the resources that were accessible, pertinent content and instructional methodologies for each session, each researcher conducted the sustainable leadership training programme with a single group independently during the day. A variety of instructional techniques, including lectures, brainstorming sessions, small group discussions, and group activities, were employed. Power point presentations and a booklet that the researchers developed and gave to all nurse managers on the first day of the programme were among the instructional materials/teaching aids used.
- Various methods of evaluation were chosen to meet the needs of the nursing managers and accomplish the goals and contents of the sustainable leadership educational programme. Feedback was given at the start of each session regarding the previous one and at the end of each session regarding the current sessions.

The Evaluation phase.

- Before the sessions, a pre-test was given. Nursing managers completed the pre-test in the presence of researchers after being informed about the goals and design of the study. Both immediately following the educational programme was implemented and three months later during the follow-up phase, an post-test was given.
- In the evaluation phase, the focus is on assessing how the educational programme affected the knowledge and practices of nursing managers about the sustainable leadership, sustainable development behavior and organizational attractiveness.

Ethical considerations:

- Prior to the conduction of the study, the scientific research ethical committee at the Faculty of Nursing Benha University granted ethical permission.
- Before beginning the data collection, each nurse manager was given information about the aim, nature, and advantages associated with the study. Oral consent was then requested. Throughout the whole study, confidentiality was maintained. Each nursing manager was advised of their ability to refuse or withdraw from the study at any time without providing a reason, and they were reassured that all data would only be utilised for research.

The Statistical design:

Data were checked before being entered into the computer. For that, the Statistical Package for Social Sciences (SPSS version 20) was utilized, and then data tabulation and analysis. The use of descriptive statistics—such as frequency, percentages, mean, and standard deviation—was used. The study hypothesis was tested, as well as the homogeneity of the outcome variables between the groups, using tests of significance (paired t-test and Chi-square). We made use of Pearson correlation coefficients. P-value $P < 0.05$ was used to indicate a statistically significant difference, while P-value $P \leq 0.001$ was used to indicate a highly statistically significant difference.

Results:

Table (1): Demonstrates that about half (50.9%) of the study sample' age was ranged from 45-< 55 years old with mean age (43.64±9.87).The highest percent of them (83.6 % & 79.1%) were married and female respectively. More than three fifth (60% &70.9%) had A

Bachelor Degree and working in the medical department respectively. Also more than half (56.4%) their years of job experience ranged from 10 to < 20 years with mean score (15.38±6.27). Additionally, (60.9% & 32.73%) working as assistant head nurse and head nurse respectively. Moreover, most of them (86.4%) reported that they haven't attended educational courses in the workplace setting.

Figure (1): Reveals that, there was a statistical significant improvement in the total levels of nursing managers' knowledge after implementation of the programme both the immediate-post and relative decline at follow up phases. Additionally, (68.2%) of them had inadequate knowledge in the pre-program; while in the immediate post and follow up it was improved and became adequate and increased to (86.4% & 75.5%) respectively.

Table (2): Demonstrates that, there were a statistical significant improvements in nursing managers' knowledge after implementation of the educational programme both immediate-post and follow-up after three months of the programme. The least mean score (1.96±2.34) with mean percent (21.74%) of them was associated with dimensions of sustainable leadership before implementation and it was raised to (8.91±2.93) with mean percent (98.98%) in the immediate-post program and its slightly reduced to (8.02±2.87) with mean percent (89.13%) in the follow up after three months.

Figure (2): Displays that, there were a statistically improvement in the total levels of nursing managers' sustainable leadership practice following implementation of the programme in both immediate post and follow-up phases compared to the pre programme phase. More than two thirds (70.9% & 67.3%) of them had good levels of sustainable leadership practice in immediate-post and follow-up programme phases respectively. While in the pre-programme; more than three fifth (60.9%) of them had poor total levels of practice regarding sustainable leadership.

Table (3): Shows that, there was a statistical significant improvements in nursing managers' sustainable leadership practice after implementation of the educational programme both immediate-post and follow-up programme phases. The least mean score (8.24±1.15) with mean percent (34.32%) of them was associated with sustainability of learning and success before implementation and it was improved and raised to (22.17±2.17) with mean percent (92.37%) in the immediate-post programme phase and its slightly reduced to (20.21±3.16) with mean percent (84.21%) in the follow up phase.

Figure (3): Indicates that, there were statistical improvements in the total levels of nursing managers' sustainable development behaviors after implementation of the educational program at both immediate post and follow-up programme phases in contrast to the pre programme phase. The highest percentages (72.7% & 63.6%) of nursing managers' had high levels of sustainable development behaviors at immediate post and follow up program phases respectively. While in pre programme the slightly less than three fifth (59.1%) of them had low total levels of sustainable development behaviors.

Table (4): Demonstrates that, there was statistical significant general enhancement in nursing managers' sustainable development behaviors after implementation of the educational programme both immediate-post and follow-up programme phases. The least mean score (13.92±2.14) with mean percent (38.67%) of nursing managers was related to environmental sustainability prior to implementation of the educational program and it was improved and increased to (32.03±3.15) with mean percent (91.76%) that represent in the immediate post

program phase and its slightly decreased to (31.05 ± 3.16) with mean percent (86.24%) in the follow up after three months the program.

Figure (4): Illustrates that, there were statistical significant improvement in total levels of nursing managers' regarding organizational attractiveness after implementation of the educational program at both immediate post and follow up program phases as compared to the pre-program. More than three fifth (68.2% & 63.6%) of nursing managers' had high levels regarding organizational attractiveness at immediate post and follow up program phases respectively. While in the pre program two fifth (60%) of them had low total levels regarding organizational attractiveness.

Table (5): Displays that, there was a statistical significant improvement in the organizational attractiveness dimensions as reported by nursing managers following educational program implementation both immediate-post and follow-up programme phases. The least mean score (6.35 ± 2.76) with mean percent (35.26%) of them was associated with improving skills of nursing workforce prior to implementation of the educational program and it was raised to (16.76 ± 3.27) with mean percent (93.12%) in the immediately post programme and its slightly reduced to (15.76 ± 3.73) with mean percent (87.56%) in the follow up phase.

Table (6): Revealed that, there was statistically significant positive correlation between sustainable leadership knowledge and practice scores with sustainable development behaviors and organizational attractiveness scores among nursing managers'.

Table (1): Frequency distribution of the studied nursing managers' personal and job data. (N=110).

The personal and job data	Total (N=110)	
	N	%
Department/unit		
Medical	78	70.9%
Surgical	28	25.5%
Ophthalmology	4	3.6%
Age		
25- < 35	22	20%
35- < 45	26	23.6%
45 - < 55	56	50.9%
55-58	6	5.5%
Mean and \pmS.D.	43.64\pm9.87	
Gender		
Male	23	20.9%
Female	87	79.1%
Marital status		
Married	92	83.6%
Unmarried	18	16.4%
Years of job experience		
< 10	25	22.7%
10< 20	62	56.4%
\geq 20	23	20.9%
Mean\pmS.D.	15.38\pm6.27	
Job position		
Nursing director	1	0.91%
Assistant nursing director	2	1.82%
Supervisor	4	3.64%
Head nurse	36	32.73%
Assistant head nurse	67	60.9%
Educational qualification		
Secondary nursing education	4	3.6%
Technical nursing education	7	6.4%
Bachelor of nursing	66	60%
Post graduate nursing education (Master)	25	22.7%
Post graduate nursing education (Doctorate)	8	7.3%
Attending educational courses about sustainable leadership in your workplace		
Yes	15	13.6%
No	95	86.4%

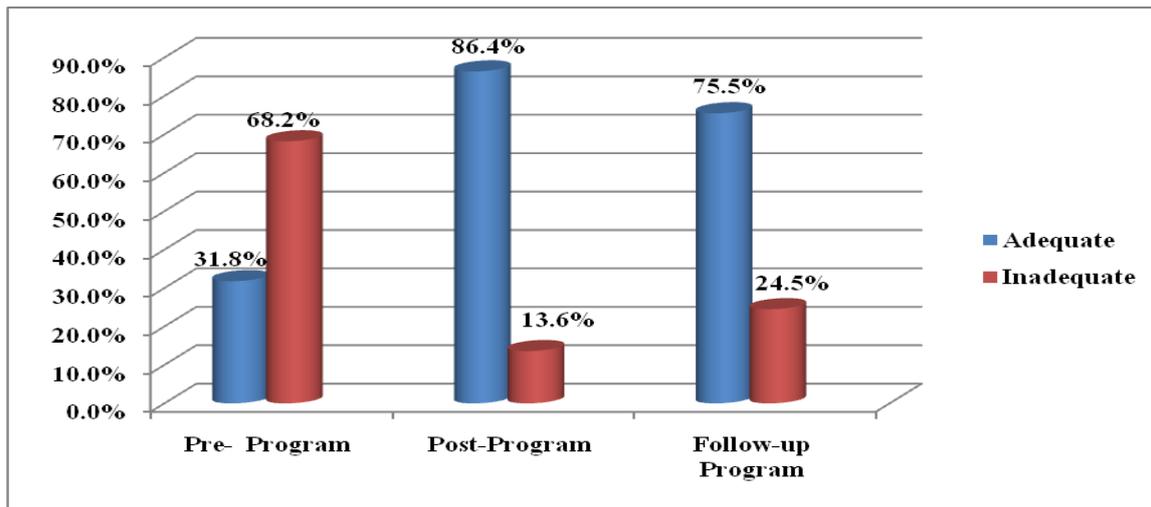


Figure (1): Percentage distribution of nursing managers' knowledge total levels about sustainable leadership throughout program phases.

Table (2): Mean scores and mean percent of nursing managers' sustainable leadership knowledge domains throughout program phases (n=110).

Domain	Mini/Maxi Score	Pre Program		Post Program		Follow-up Program		t1 P-Value	t2 P-Value	t3 P-Value
		Mean±S.D.	Mean %	Mean±S.D.	Mean %	Mean±S.D.	Mean %			
1. Concept of Sustainability and Leadership	6	2.12±2.13	35.27	5.81±4.37	96.87	5.12±3.18	85.36	15.12 0.001	13.02 0.254	11.62 0.001
2. Goals of Sustainable Development and health care sustainability	9	3.35±3.12	37.26	8.63±3.47	95.88	7.67±3.36	85.17	23.21 0.001	21.13 0.407	18.27 0.001
3. Importance and Benefits Sustainable Leadership	6	1.95±2.16	32.47	5.75±3.68	95.86	4.75±3.657	79.12	19.62 0.001	18.29 0.136	11.78 0.001
4. Dimensions of Sustainable Leadership	9	1.96±2.34	21.74	8.91±2.93	98.98	8.02±2.87	89.13	17.41 0.001	15.37 0.213	10.62 0.001
5. Principles of Sustainable Leadership	8	2.66±2.13	33.29	7.67±3.04	95.87	6.58±3.04	82.29	16.58 0.001	14.49 0.168	12.21 0.001
6. Core Competencies of Sustainable Leadership	10	3.33±3.01	33.26	9.69±3.27	96.89	8.41±4.02	84.14	15.29 0.001	13.93 0.098	10.28 0.001
7. Approaches of Sustainable Leadership	10	3.21±2.03	32.14	9.80±2.97	97.98	8.52±2.97	85.23	18.62 0.001	15.74 0.097	12.67 0.001
8. Challenges and Barriers of Sustainable Leadership	7	2.11±1.98	30.16	6.58±3.17	93.98	5.41±3.69	77.22	17.83 0.001	14.92 0.147	13.13 0.001
Total	65	20.69±4.35	31.83	56.258±5.86	86.55	49.076±4.35	75.50	29.89 0.001	25.76 0.149	17.32 0.001

(A statistical significant difference $P \leq 0.05$ & A highly statistical significant difference $P \leq 0.001$)

(t1): Paired t test between pre & post program (t2): Paired t test between post & follow-up program (t3): Paired t test between pre & follow-up program

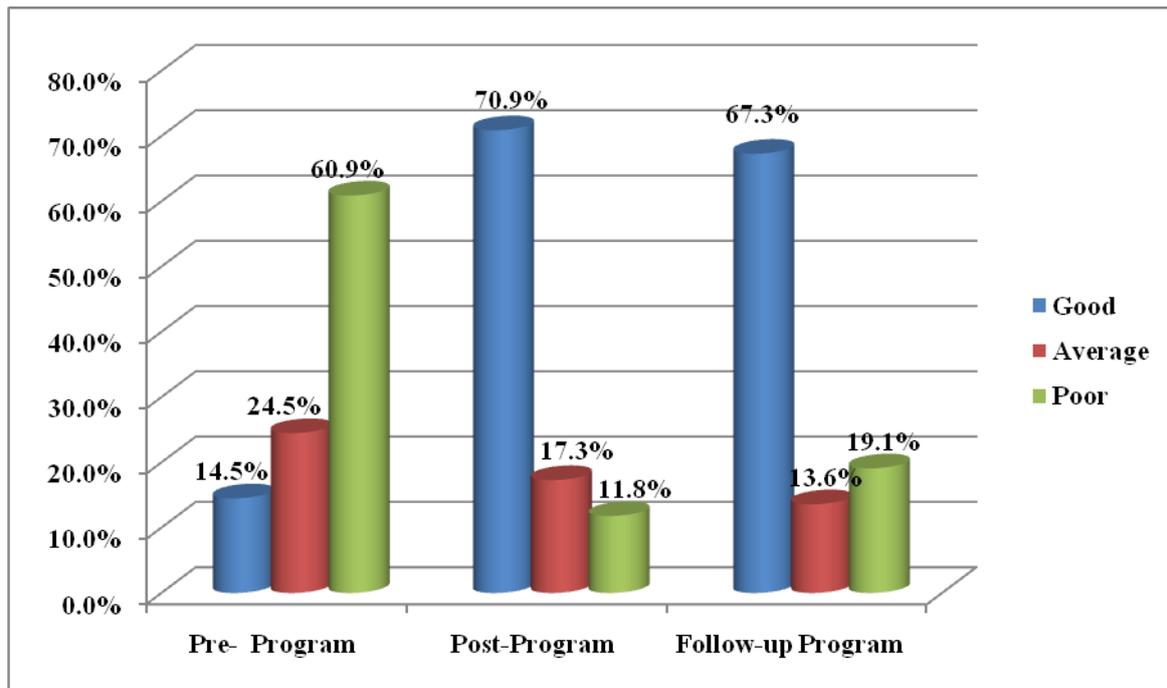


Figure (2): Percentage distribution of nursing managers' practice total levels regarding sustainable leadership throughout program phases.

Table (3): Mean scores and mean percent of nursing managers' sustainable leadership practice domains throughout program phases (n=110).

Domain	Mini-Maximum Score	Pre-Program		Post-Program		Follow-up Program		t1 P-Value	t2 P-Value	t3 P-Value
		Mean±S.D.	Mean %	Mean±S.D.	Mean %	Mean±S.D.	Mean %			
1. Sustainability of Learning and Success	8-24	8.24±1.15	34.32	22.17±2.17	92.37	20.21±3.16	84.21	13.02 0.001	11.13 0.354	19.86 0.001
2. Future Vision	7-21	8.54±2.03	40.68	18.21±3.11	86.72	16.87±3.05	80.32	18.34 0.001	17.09 0.572	20.36 0.001
3. Building A sustainable Leadership Team	10-30	12.84±2.34	42.79	26.39±3.02	87.96	24.34±2.18	81.14	14.62 0.001	11.29 0.316	19.89 0.001
4. Social & Environmental Responsibilities	6-18	7.14±1.98	39.67	15.47±2.17	85.97	14.60±2.13	81.13	15.37 0.001	12.46 0.312	20.16 0.001
5. Talent Management and Creativity	6-18	7.45±2.09	41.38	15.62±2.09	86.78	14.42±3.42	80.13	13.45 0.001	10.94 0.613	19.67 0.001
6. Human Resources Professional Development	9-27	10.45±2.18	38.69	23.97±3.02	88.79	21.61±3.11	80.02	13.79 0.001	11.43 0.176	20.37 0.001
7. Legal and Ethical Behaviours	7-21	8.79±2.14	41.86	18.90±3.12	89.98	16.95±3.42	80.71	18.62 0.001	15.46 0.279	21.79 0.001
8. Organizational Culture	7-21	8.90±1.09	42.36	18.01±3.06	85.78	16.62±3.18	79.12	16.85 0.001	14.39 0.324	23.41 0.001
Total	60-180	72.34±3.67	40.19	158.75±5.21	88.19	145.62±4.59	80.90	25.29 0.001	23.51 0.462	26.43 0.001

(A statistical significant difference $P \leq 0.05$ & A highly statistical significant difference $P \leq 0.001$)

(t1): Paired t test between pre & post program (t2): Paired t test between post & follow-up program (t3): Paired t test between pre & follow-up program.

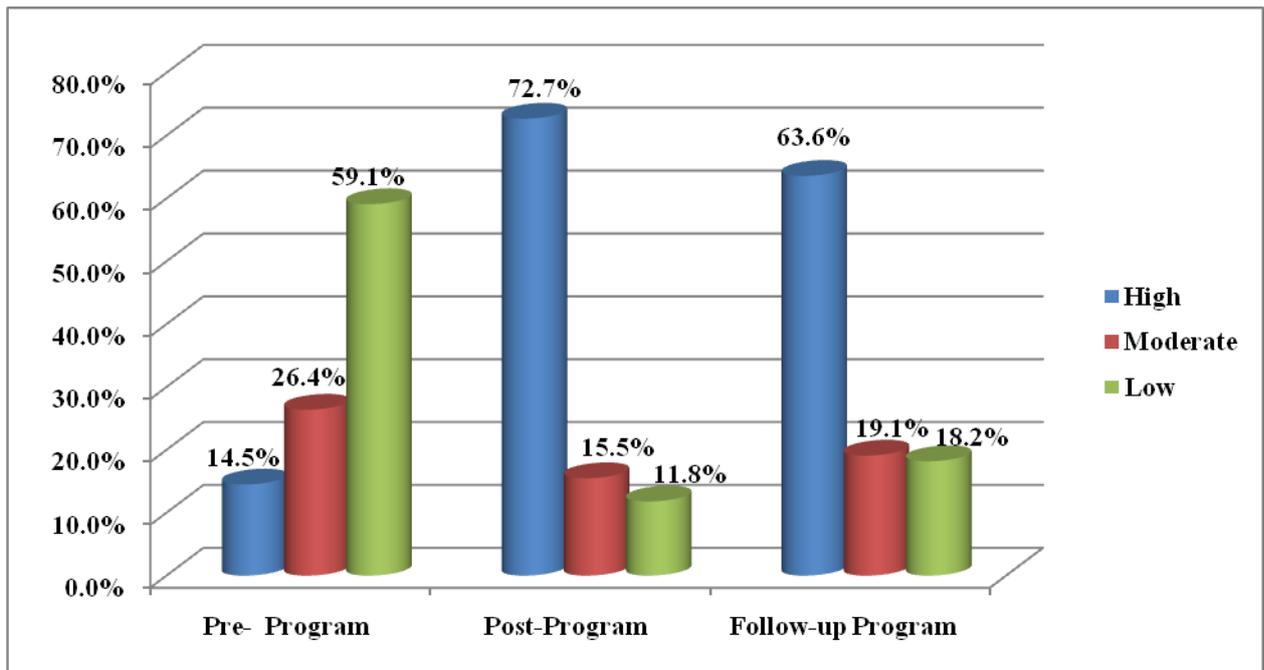


Figure (3): Percentage distribution of nursing managers' sustainable development behaviors total levels throughout program phases.

Table (4): Mean scores and mean percent of nursing managers' sustainable development behaviors domains throughout program phases (n=110).

The Domain	Mini-Maximum Score	Pre-Program		Post-Program		Follow-up Program		t1 P-Value	t2 P-Value	t3 P-Value
		Mean±S.D.	Mean %	Mean±S.D.	Mean %	Mean±S.D.	Mean %			
1.Environmental Sustainability	12-36	13.92±2.14	38.67	33.03±3.15	91.76	31.05±3.16	86.24	31.04 0.001	24.83 0.354	26.28 0.001
2. Social Sustainability	6-18	7.52±3.16	41.79	15.75±3.27	87.48	14.46±4.37	80.36	27.81 0.001	17.09 0.572	24.36 0.001
3. Economical Sustainability	5-15	6.58±2.46	43.87	12.37±4.25	82.46	11.89±3.94	79.28	23.63 0.001	11.29 0.316	21.37 0.001
4.Personal Attributes	7-21	8.80±2.49	41.89	18.24±3.96	86.86	17.06±2.85	81.23	25.87 0.001	12.46 0.312	23.46 0.001
Total	30-90	36.82±3.87	40.91	79.39±5.21	88.21	74.46±6.24	82.74	40.67 0.001	23.51 0.462	33.28 0.001

(A statistical significant difference $P \leq 0.05$ & A highly statistical significant difference $P \leq 0.001$)

(t1): Paired t test between pre & post program (t2): Paired t test between post & follow-up program (t3): Paired t test between pre & follow-up program.

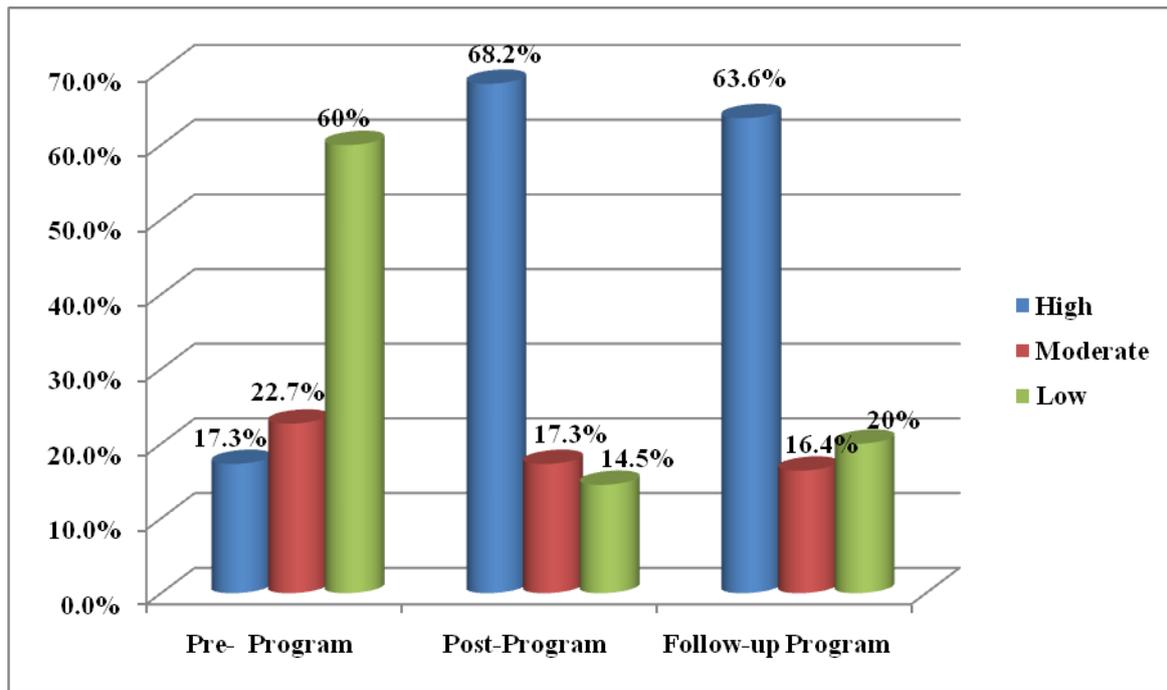


Figure (4): Percentage distribution of the organizational attractiveness total levels as reported by nursing managers' about throughout program phases.

Table (5): Mean scores and mean percent of organizational attractiveness dimensions as reported by nursing managers throughout program phases (n=110).

The dimension	Mini-Maximum Score	Pre-Program		Post-Program		Follow-up Program		t1 P-Value	t2 P-Value	t3 P-Value
		Mean±S.D.	Mean %	Mean±S.D.	Mean %	Mean±S.D.	Mean %			
1.Improving Skills of Nursing Workforce	6-18	6.35±2.76	35.26	16.76±3.27	93.12	15.76±3.73	87.56	23.26 0.001	19.13 0.354	25.86 0.001
2.Health and Safety at workplace	6-18	7.31±2.39	40.59	16.22±3.56	90.13	15.36±4.13	85.34	19.34 0.001	16.09 0.572	24.36 0.001
3.Supported Balance between Work and Life	5-15	5.98±3.46	39.87	13.07±2.48	87.12	12.34±3.64	82.26	17.62 0.001	15.29 0.316	20.89 0.001
4.Equity OR Equal Work Opportunities	7-21	8.79±2.78	41.87	18.92±3.73	90.11	17.92±2.53	85.31	20.37 0.001	17.46 0.312	21.16 0.001
5.Nursing Workforce Diversity	6-18	7.58±3.27	42.12	14.43±3.92	80.14	13.37±3.42	74.26	21.45 0.001	19.94 0.613	22.67 0.001
6. Loyalty in Workplace	12-36	14.72±2.38	40.89	29.20±4.18	81.12	27.41±3.45	76.14	22.79 0.001	18.43 0.176	23.37 0.001
7. Match Values	8-24	9.31±3.24	38.79	19.71±3.74	82.13	18.06±3.48	75.24	18.62 0.001	14.46 0.279	21.79 0.001
Total	50-150	60.04±5.26	40.03	128.32±8.59	85.54	120.21±6.64	80.14	30.24 0.001	25.51 0.462	35.43 0.001

(A statistical significant difference $P \leq 0.05$ & A highly statistical significant difference $P \leq 0.001$)

(t1): Paired t test between pre & post program (t2): Paired t test between post & follow-up program (t3): Paired t test between pre & follow-up program.

Table (6): Correlation among nursing managers' sustainable leadership knowledge & practice, sustainable development behaviors and organizational attractiveness throughout program phases.

Variable	Program phases	Sustainable leadership knowledge		Sustainable leadership practice		Sustainable development behaviors		Organizational attractiveness	
		r	P value	r	P value	r	P value	r	P value
Sustainable leadership knowledge	Pre-program	1	----	0.189	0.641	0.179	0.467	0.163	0.427
Sustainable leadership practice		0.189	0.641	1	----	0.162	0.348	0.263	0.461
Sustainable development behaviors		0.179	0.467	0.162	0.348	1	----	0.253	0.134
Organizational attractiveness		0.163	0.427	0.263	0.461	0.253	0.134	1	----
Sustainable leadership knowledge	Post-program	1	----	0.736	0.003	0.671	0.002	0.812	0.003
Sustainable leadership practice		0.736	0.003	1	----	0.486	0.001	0.392	0.004
Sustainable development behaviors		0.671	0.002	0.486	0.001	1	----	0.573	0.002
Organizational attractiveness		0.812	0.003	0.392	0.004	0.573	0.002	1	----
Sustainable leadership knowledge	Follow-up	1	----	0.761	0.000	0.647	0.001	0.647	0.002
Sustainable leadership practice		0.761	0.000	1	----	0.621	0.003	0.736	0.000
Sustainable development behaviors		0.647	0.001	0.621	0.003	1	----	0.642	0.003
Organizational attractiveness		0.647	0.002	0.736	0.000	0.642	0.003	1	----

Discussion:

The development and maintenance of sustainable leadership practices is vital for health care organizations to ensure their survival and competitiveness in an increasingly globalized environment. As a result, organizations all over the world have prioritized sustainability development as a major strategic objective and acknowledged its significance. There is mounting proof that developing exceptional leadership abilities is necessary for creating and executing sustainable plans and this expertise should be given careful consideration (Cooney et al., 2022).

The present study revealed that there was a statistical improvement in nursing managers' knowledge following implementation of the educational program both immediate-post and follow-up program phases. At the pre program phase more than three fifth of nursing managers had inadequate level of knowledge while in the immediate post-programme phase it was improved to become adequate and relative decline at the follow-up programme but still more than pre program phase. Additionally it was noticed that the nursing managers had higher immediate-post and follow-up phases mean scores than pre program. While a slightly mean score lowered in follow-up phase in comparison to immediate-post programme but still more than pre programme phase.

According to the researcher's perspective, as most of the nurse managers hadn't attended prior educational courses about sustainable leadership, this outcome may have resulted from their inadequate knowledge of sustainable leadership. Thus, it might be argued that the training program's participatory setting and the fact that learning was not a passive experience contributed to the growing knowledge that nurse managers were acquiring. In addition, nursing managers' knowledge development is greater in the immediate post-program period than it is in the follow-up after three-months. This could be because knowledge decays with time and not all knowledge is stored in long-term memory as a biological truth that requires regular updating and refreshing. Furthermore, nursing management may be at blame for this.

The current study findings was supported by Al-Jawdah, & Al Shamasi, (2022), who conducted a study on Faculty members in King Abdulaziz University in Jeddah Governorate

and concluded that the percentage of sustainable leadership knowledge was at a high rate. Also **Elshall, et al., (2022)**, who carried out their study among nursing students at Menoufia University and reported that the higher mean score of nursing students' knowledge toward sustainability development post intervention for study group and there was a highly significant difference between study and control group post educational intervention.

In addition to these finding agreed with **Jahanshahi, et al., (2019)**, who conducted his study on employees working in small-sized private businesses in Afghanistan and reported that they are more interested in minimizing the negative impact of their actions on the surrounding environment, particularly when they have a good level of environmental sustainability awareness. Therefore, in order to maximize employee sustainable behaviors and fully realize environmentally-oriented goals, organizations should raise the staff's environmental awareness as well.

The finding of the current study revealed that, there was statistically significant improvement in nursing managers' sustainable leadership practice total levels following implementation of the program both immediate-post and follow-up phases; greater than three fifth of nursing managers had poor level of sustainable leadership practice in the pre-program phase while after implementation of the educational program the more than two thirds of them had good total levels of sustainable leadership practice in the immediate post and follow up program phases. Also the least mean score of nursing managers was related to sustainability of learning and success prior implementation and it was improved and raised in both immediate post and follow up programme phases.

According to the researcher perspectives, this outcome could be the result of nursing managers' poor sustainable leadership practices prior to the educational program's intervention, but good sustainable leadership practices following programme implementation, which helped raise the managers' practical level of sustainable leadership. Additionally, the effectiveness of the educational programme may have contributed to this finding by strengthening the leadership competencies of nursing managers to respond to rapid change and development. Furthermore, the nature of sustainable leadership practice improves staff job performance and satisfaction, active communication, interpersonal relationships and interactions, supports effective teamwork, and fosters staff commitment to the organization through the establishment of a sustainable team, human resources professional development, creativity and talent management.

The foregoing result of current study was agreed with **Kariri, and Al Makhaafi, (2019)**, who carried out their study on leaders at King Khalid University and mentioned that the importance level of the application of sustainable leadership is high. Also, **Mohamed, (2022)**, who conducted his study at Sohag University and emphasized that the dimensions of sustainable leadership practices all came to a medium degree, also there were statistically significant differences according to the degree variable in these dimensions (organizational culture, sustainability of learning and success). In the same context **Faraj, and Al- Otaibi, (2023)**, who performed their study on academic leaders of Taif University and mentioned that the degree of practicing a sustainable leadership by the leaders to view it, if University was high in the dimensions where ranked, respectively as creating sustainable, education, ensuring continuous success, developing human and physical resources, maintaining others, leadership and achieving social justice.

In addition to **Al-Bakri, (2023)**, who conducted his study on the directorate of education in the Red Sea Governorate and emphasized that the degree of reality of sustainable leadership domains among the leaders' perspective was high. Also, **Alkhamiseh, & Abu El-Ela, (2022)**, who conducted their study on the teachers' point of view in Qweismeh District and indicated that the degree of sustainable leadership practice among study sample was

medium, and the principles of sustainable leadership were ranked in descending order as follows: continuity of learning, building a leadership team, ethical behaviour, building long-term goals, human resource development, creativity, talent and social responsibility. On the other hand, the finding of the current study was contradicted with **Alamri, and Alaiban, (2023)**, who conducted their study on staff of King Saud University and stated that the friendly relationship dimension between employees came in the first place followed by the retention dimension it was found that study sample agreed to a moderate degree on their reality of high level, practice of sustainable leadership at the University.

The present study showed that, there were statistical significant enhancements in total levels of sustainable development behaviours for nursing managers following implementation of educational programme at both immediate-post and follow-up programme phases in contrast to the pre program phase. Less than three fifth of them had low total level of sustainable development behaviors in the pre program phase while the highest percentages of them had high total level of sustainable development behaviors following implementation of the programme in both immediate-post and follow-up phases. Also the least mean score of nursing managers was relevant to effective teamwork prior implementation and it was improved and raised in the immediate-post and follow-up phases.

According to the researchers' point of views, the success of the educational programme on sustainable leadership in enhancing nursing managers' knowledge and practice of sustainable leadership may have contributed to the improvement of nursing managers' sustainable development behaviours following the program's implementation. This, in turn, may have improved nursing managers' behaviours regarding sustainable development. This finding may also be the result of nursing managers' efforts to positively implement sustainable leadership practices as much as possible by making sure that their staff find meaning in their work, fostering a more enjoyable workplace that fosters positive relationships with co-workers and develops development teams, offering rewards and recognition that can encourage staff moral support, loyalty, and affiliation, and eliciting positive emotions as the foundation for creativity, initiations, and innovations that foster a climate of trust in order for pleasant emotions to represent people's capacity for coming together for a shared goal and forging an important vision for an organisation that is in line with Egypt Vision 2030.

The foregoing finding of the current study agreed with **Sorour, et al., (2021)**, who conducted their study on staff nurse's Shebin El-Kom Teaching Hospital and concluded that staff nurse's response to sustainable development behavior were all at a moderate level. Additionally, **Ruiz-Pérez, et al., (2021)**, who conducted their study on staff in Spain and revealed that the results show consensus on employees and propose behaviors that could enhance some of the most important variables of economic, social and environmental sustainability. Moreover, **Elshall, et al., (2022)**, who carried out their study at Menoufia University on nursing students and emphasized that the higher mean score of nursing students' was related to knowledge, attitude and behavior toward sustainability development post intervention for study group, and there was a highly significant difference between study and control groups post educational intervention.

The foregoing findings of the current study in the same context of **Ciarniene, et al., (2023)**, who revealed on their study on employees in Lithuania that staff behaviors during the COVID-19 pandemic changed for economic, environmental and social dimensions. Positive changes were identified due to reduced commuting and shopping; decreased costs for transport, food, clothing, and beauty services; better access to healthy and nutritious food; better opportunities for professional development.

In addition to **Elfalafly, and Albrolosy, (2022)**, who conduct their study on staff in Sixth of October City, Egypt and reported that by studying the methods of raising the efficiency of sustainable behaviors in the work environment to achieve the sustainability of the buildings, it was reported that there was a link between the management of sustainable human resources in terms of training, follow-up, and evaluation and the efficiency of behaviors, which gives control over the components of the efficiency of behaviors (motivation - time - performanc) and the possibility of programming them in the form of constants and variables. Moreover, **Zacher, et al., (2023)**, who mentioned in their study on staff in Germany that the environmental sustainability has become an ethical and strategic imperative for organizations, and more employees are interested, encouraged, or instructed to act in environmentally sustainable ways.

The present study indicated that there were statistical significant improvement in the total levels of organizational attractiveness as reported by nursing managers following implementation of educational programme at both immediate-post and follow-up program phases in contrast to the pre program phase. Two fifth of them had low total levels regarding organizational attractiveness in the pre-program phase while more than three fifth of them had high total level at both immediate-post and follow-up phases. Also the least mean score of nursing managers was relevant to improving skills of nursing workforce prior implementation of educational programme and it was raised following implementation of the educational programme.

According to researcher's opinions, this finding might be the result of a relationship between the health care organization's capacity to successfully manage its operations and deliver its services and the success of its managers and leaders. Where the staff has a future vision to elevate their organization to a high level of attractiveness and where the organization is creating a clear and visible future line for all staff members. The need for sustainable leaders in the workplace is also made clear by the way that the competitive environment is changing and how quickly the needs of staff and patients are diverging. This is because sustainable leaders put in a lot of effort to forge strong bonds with their teams and patients that are highly attractive.

The findings of the current study supported by **Penela, (2019)**, who performed his study on staff in Spain and reported that more than three quarters of the study subjects agreed that improving the skills of the workforce is the highest dimension for organizational attractiveness. Also **Bilderback, (2023)**, who conducted his study on staff at USA and indicated in his results that integrating sustainability training, has a positive impact on organizations. This impact includes promoting sustainable practices, improving employee satisfaction and productivity, reducing environmental impact and enhancing the organization's reputation and attractiveness, and revealed that regular progress reviews and long-term goals are essential for organizations to remain competitive and adapt to changes. Additionally, **Qalati, et al., (2023)**, who conducted their study on staff in China and reported that environmentally sustainable practices have a direct and significant influence on economic of workforce performance.

The current study showed that there was statistically significant positive correlation between nursing managers' sustainable leadership knowledge and practice scores with their sustainable development behaviours and organizational attractiveness scores. This means when nursing managers' sustainable leadership knowledge and practice is raised their sustainable development behaviors and organizational attractiveness is enhanced and developed.

According to researches' point of view, this finding may be the result of nursing managers who understand the value of sustainable leadership and successfully implement it. This will enable them to support staff in enhancing and demonstrating their best work with high energy when they arrive at work and dedicate themselves to their performance. It will also empower staff to meet needs and ease workplace tensions, which is crucial for nursing

managers to practise and can play a significant role in promoting their organizational attractiveness.

The results of the present study supported by **Hatheyer, (2021)**, who conducted his study about and found that corporate sustainability could be one of many ways to increase staff attractiveness and a positive relationship between those two factors could be analysed, and that sustainability based staff attractiveness is still very underexposed, as monitoring and measurement processes are not applied yet. Also **Adamu, et al., (2023)**, who carried out their study on staff and mentioned that ethical and sustainable leadership helps in creating an ethical environment that encourage trust, honesty, integrity, and justice which automatically can be used in influencing positive behaviors of staff, customers and other stakeholders, thereby enhancing corporate legitimacy and sound firm reputation and attractiveness.

Conclusion

Based on the result of the current study findings; it was concluded that there was highly statistically significant improvements in the nursing managers' levels of sustainable leadership knowledge and practice following the implementation of both immediate-post and follow-up programme phases. Additionally, the most improved items were relevant to/associated with dimensions of sustainable leadership knowledge, sustainability of learning, and success of sustainable leadership practice. Furthermore, concerning levels of nursing managers' sustainable development behaviours and organizational attractiveness, there were high statistical significant improvements and differences among mean scores reported by nursing managers throughout all program phases. Also the most improved items was relevant to/associated with sustainable leadership of sustainable development behaviors and improving skills of nursing workforce of organizational attractiveness. Moreover, there was statistical significant positive correlation between nurse managers' sustainable leadership knowledge and practice scores with their sustainable development behaviors and organizational attractiveness scores.

Recommendations:

The following recommendations are made based on the findings of the current study:

1. Conducting regularly refreshing courses for nursing managers at all levels about sustainable leadership, sustainable development behaviours, and organisational attractiveness.
2. Introduce sustainability and sustainable leadership strategies and core competencies in the hospital strategic planning to maintain competitive in today's health care market.
3. Fostering an organisational culture that advances the notion, objectives, and tactics of sustainable health care and sustainable leadership, as well as its impact on sustainable development practices and the attractiveness of the organization through periodic workshops.
4. Achieving health care sustainability and sustainable leadership goals, principals, core competencies, attributes and applications for enhancing standards and work capacity.
5. Further study to assess challenges and factors affecting on sustainable leadership to enhance sustainable development behaviors and organizational attractiveness.
6. Further study required to look for the issues and variables influencing organisational attractiveness, sustainable development practices, sustainable leadership, and health care sustainability management in real-world settings.

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الملخص العربي

تأثير برنامج تعليمي عن القيادة المستدامة لمديري التمريض على سلوكيات التنمية المستدامة والجاذبية التنظيمية

مقدمة: يواجه العالم صعوبات فيما يتعلق بالاستدامة البيئية والاجتماعية والاقتصادية. تتطلب الاستدامة قادة يمكنهم تعزيز ممارسات الإستدامة في المجتمع والمنظمات وإشعال الرخاء الاقتصادي. تؤكد القيادة التمريضية المستدامة على خلق الأرباح الحالية والمستقبلية للمؤسسات الصحية، وتعزيز جودة الحياة، وتطوير قيم الاستدامة على المستوى الفردي والتنظيمي والاجتماعي.

الهدف: تهدف هذه الدراسة إلى تقييم تأثير برنامج تعليمي عن القيادة المستدامة لمديري التمريض على سلوكيات التنمية المستدامة والجاذبية التنظيمية.

تصميم البحث: تم استخدام تصميم شبه تجريبي تجريبي لإجراء الدراسة.

مكان البحث: أجريت الدراسة في جميع الوحدات (36) بمستشفى بنها الجامعي، القليوبية، محافظة مصر.

العينة: جميع مديري التمريض (110) وتشتمل على (1) مدير التمريض، (2) مساعد مدير التمريض، (4) مشرفين، (36) رؤساء تمريض، (67) مساعد رؤساء تمريض.

أدوات الدراسة: تم استخدام أربع أدوات في هذه الدراسة؛ أولاً: استبيان معلومات القيادة المستدامة، ثانياً: استبيان ممارسة القيادة المستدامة، ثالثاً: استبيان سلوكيات التنمية المستدامة، والأداة الرابعة: استبيان الجاذبية التنظيمية.

النتائج: كشفت الدراسة أن حوالي أقل من الثلث (31.8%) من مديري التمريض كان لديهم المعلومات الكافية في مرحلة ما قبل البرنامج بينما بعد تنفيذ البرنامج زادت إلى 68.2% وفي المتابعة إلى 75.5%. وفيما يتعلق بممارسة القيادة المستدامة، كان لدى 14.5% منهم مستوى جيد من الممارسة في مرحلة ما قبل البرنامج بينما في مرحلة ما بعد البرنامج مباشرة والمتابعة تحسنت وارتفعت إلى (70.9% و 67.3%) على التوالي. وفيما يتعلق بسلوكيات التنمية المستدامة فإن 14.5% من مديري التمريض كان لديهم مستوى عالٍ في مرحلة ما قبل البرنامج بينما في مرحلتي ما بعد البرنامج والمتابعة وتم تعزيزه وزيادته إلى (72.7% و 63.6%) على التوالي. وفيما يتعلق بالجاذبية التنظيمية كما ذكرت من قبل مديري التمريض فإن 17.3% من مديري التمريض كان لديهم مستوى عالٍ في مرحلة ما قبل البرنامج وارتفع إلى (68.2% و 63.6%) في مرحلتي ما بعد البرنامج والمتابعة على التوالي.

الخلاصة: نستخلص من هذه الدراسة أنه أدى تنفيذ البرنامج التعليمي إلى تحسين معلومات وممارسات مديري التمريض عن القيادة المستدامة. كما كانت هناك علاقة إيجابية ذات دلالة إحصائية بين درجة معلومات وممارسات القيادة المستدامة لمديري التمريض مع درجات سلوكيات التنمية المستدامة والجاذبية التنظيمية.

التوصيات: دعم الثقافة التنظيمية التي تساهم في نمو مفهوم وأهداف واستراتيجيات استدامة الرعاية الصحية والقيادة المستدامة للمحافظة على سلوكيات التنمية المستدامة والجاذبية التنظيمية. وتعزيز استدامة الرعاية الصحية وأهداف القيادة المستدامة والمبادئ والكفاءات الأساسية والسمات والتطبيقات لتعزيز المعايير والقدرة على العمل من خلال عقد ورش العمل بصفة دورية.

الكلمات المفتاحية: مديري التمريض، الجاذبية التنظيمية، سلوكيات التنمية المستدامة، القيادة المستدامة.