Effect of Ethical Leadership Awareness on Nursing Managers' Levels of Workaholism

[1]Hossam Mohamed Mahran, [1]Om Hashem Gomaa Ragab, [2]Wafaa Abd- El Azeem El Hosany Dawood
[1]Faculty of Nursing, Sohag University, Egypt
[2] Faculty of Nursing, Misr University for Science and Technology, Suez Canal University Hospitals, Egypt
Corresponding author: Hossam Mohamed Mahran, **Email:** hossammahran7@gmail.com,
Phone number: 01117397405

ABSTRACT
Background: Workaholism adversely affects personal health and relationships particularly among those in leadership roles. Ethical leaders are responsible for establishing a healthy, equitable, and supportive workplace that promotes wellbeing and deters workaholism.
Aim: This study aimed to assess the impact of ethical leadership awareness on nursing managers' levels of workaholism.
Methods: The study was a Quasi-experimental research design, using convenience sampling on 100 nursing managers working at Suez Canal University Hospitals. Three tools were leveraged to achieve the aim of the study included: Ethical leadership knowledge questionnaire, which consists of two parts: Part (1): Personal and work related data sheet of nursing managers and part (2): Ethical leadership knowledge questionnaire [Korean version ethical leadership at work questionnaire (KELW)], and workaholism analysis questionnaire.
Results: 28%, 25% of nursing mangers had satisfactory knowledge and high attitude regarding ethical leadership pre-program implementation respectively, which increased to 92% and 94% of nursing mangers' had satisfactory knowledge and high attitude post-program implementation respectively. Conversely, nursing managers' level of workaholism decreased to 11.1 post program implementation.
Conclusion: There was a positive statistical significant correlation among ethical leadership knowledge and attitude at all program phases. Conversely, a negative statistically significant correlation was found between nursing managers' ethical leadership knowledge and attitude and their levels of workaholism throughout all program phases.
Keywords: Awareness, Ethical leadership, Nursing managers, Workaholism.

INTRODUCTION

Nursing managers' ethical awareness is paramount, as a deficiency in this area can precipitate unethical conduct that compromises the integrity and reputation of the nursing profession. Ethical competence is a multifaceted construct, commencing with ethical sensitivity and subsequently fortified through the acquisition of ethical knowledge, consistent reflection, and decisive action. A crucial determinant of nurses' ethical sensitivity is the ethical and moral comportment and attitudes demonstrated by their nursing managers. Subordinates are more inclined to trust and emulate managers who serve as exemplary role models for ethical practice, thereby fostering a workplace culture where ethical behavior is both expected and reciprocated [1, 2].

Madarasi & Hadházi [3] stated that leaders within an organization offer direction, establish goals, make decisions, and inspire teams to reach the organization's objectives. Their responsibilities span a variety of areas, including strategic planning, personnel management, resource allocation, and change management. Effective leaders possess the ability to influence others, cultivate a positive organizational culture, and ensure alignment with the organization's mission and values.

The success of healthcare organizations heavily depends on nursing leaders. They impact patient outcomes and care quality, while also shaping the work environment, inspiring professional growth, and driving systemic improvements. Their leadership cultivates a culture of excellence, safety, and collaboration, benefiting both the healthcare team and the patients they serve. Therefore, it is well-established that the well-being of leaders significantly influences the well-being of their subordinates, the quality of patient care, and the overall health of the organization itself [4]. This places a substantial responsibility on managers to meticulously manage how both they and their employees engage with their work, and critically, how they define the boundaries between a healthy quantity and quality of professional activity and their personal lives. This careful delineation is particularly crucial given its direct impact on the potential for workaholism to emerge and proliferate within the workplace [3]. Therefore, a leader's proactive approach to fostering a balanced work environment is not only beneficial for individual employees but also vital for sustained organizational success and the well-being of those they serve.

The issue of workaholism adversely affects personal health and relationships can be particularly common among those in leadership roles. This workaholism can have serious consequences for both the leaders' well-being and how effective they are at leading their teams [5].

According to **Abdi & Alavi** [6] workaholism is associated with widespread and diverse negative symptoms, such as exhaustion, psychological strain, and distress, sleeping difficulties, cardiovascular disease, increased systolic blood pressure, and metabolic syndrome. Workaholic nurses often experience a diminished quality of social relationships outside of work, leading to reduced job and life satisfaction. Despite their tendency to work exceptionally long hours and exert extreme effort, workaholic nursing managers typically do not

demonstrate increased long-term productivity. In fact, their excessive and compulsive work patterns can negatively impact their own well-being and, consequently, the effectiveness of the team and organization.

The term "workaholism" was first used in 1971 to describe the uncontrollable urge or drive to work continuously. Additionally, workaholics typically devote as much time as possible to their jobs. Consequently, workaholism comprises two separate but complementary elements: excessive work; a behavioral component (i.e., working hard, focusing a lot of time on work-related activities, and neglecting other aspects of life); and a cognitive component (i.e., obsessive about work, compulsive thoughts about work) [7].

Workaholic leaders frequently overlook their own physical and mental health, which can compromise their capacity to lead ethically. Ethical leadership demands clarity of thought, emotional stability, and the ability to make well-considered decisions. When leaders are overworked and stressed, their decision-making may suffer, potentially resulting in unethical behaviors such as favoritism, poor judgment, or even jeopardizing patient care in healthcare environments [8, 9].

Saad *et al.* [10] articulated that ethical leadership consistently correlates with advantageous outcomes for both nurses and healthcare organizations. These beneficial outcomes encompass enhanced perceptions of organizational justice, increased job satisfaction, stronger organizational commitment, greater organizational support, heightened organizational identification, deeper organizational trust, improved motivation, reduced turnover intention, and mitigated workaholism.

Ethical leadership fundamentally shapes employee behaviors within organizations by exerting a profound influence through multiple mechanisms. **Primarily**, ethical leaders serve as potent role models, consistently exhibiting ethical conduct in their decision-making processes and interpersonal interactions. **Secondly**, by cultivating an environment of trust and respect among their team members, they foster a positive and conducive work environment.

Thirdly, ethical leaders actively contribute to the establishment and nurturing of a robust ethical organizational culture. **Fourthly**, their decision-making is rooted in sound moral principles, thereby encouraging employees to integrate ethical considerations into their own decision-making processes. Ultimately, ethical leaders significantly boost employees' engagement and commitment to the organization [11, 12, 13].

Managing workaholism requires ethical leadership, particularly for nursing managers. Promoting work-life balance, establishing healthy boundaries, modeling sustainable work practices, and striking a balance between their ethical obligations and personal well-being are all ways that ethical leaders might keep themselves from succumbing to workaholism. In general, ethical leadership is responsible for establishing a healthy, equitable, and supportive workplace that promotes wellbeing and deters workaholism [14, 15, 8, 9].

A study by **Morkevičiūtė and Endriulaitienė** [16] found that managers exhibiting ethical leadership traits had lower levels of workaholism compared to those who were less characterized by ethical leadership. Furthermore, research conducted in Egypt among healthcare workers revealed a significant link between workaholism and both poor psychological health and diminished quality of life in this population. Specifically, healthcare workers in critical specialties demonstrated an association between workaholism, burnout, and elevated pro-inflammatory markers, as reported by **Kasemy** *et al.* [17]. Consequently, the present study was designed to evaluate the impact of an ethical leadership training program on the levels of workaholism among nursing managers at Suez Canal University Hospitals

This study aimed to assess the impact of ethical leadership awareness on nursing managers' workaholism levels. It aimed to achieve this by:

Study objectives:
- **Determining the effect of an ethical leadership awareness program** on nursing managers' ethical leadership knowledge and attitude, both before and after program implementation.
- **Determining the effect of an ethical leadership awareness program** on nursing managers' levels of workaholism, both before and after program implementation.
- **Determining the relationship** between nursing managers' ethical leadership knowledge, their attitude, and their levels of workaholism.

MATERIALS AND METHODS
- **Study design:** This research utilized a quasi-experimental research design.
- **Participants:** The study was conducted at Suez Canal University Hospitals. The target population for this study was nursing managers enrolled in the University Hospitals of Suez Canal University. A convenient sample (No. = 100) that included nursing managers working at Suez Canal University Hospitals.

Research tools
Ethical leadership knowledge questionnaire: consists of two parts:
Part (1): Personal and work related data sheet: This section included personal data about participants namely (Name, age, gender, department, qualifications, marital status and experience in current position).
Part (2): Ethical leadership knowledge questionnaire: It developed by **Saad** *et al.* [10]. This tool aimed to assess nursing managers' knowledge regarding ethical

leadership. Each question was assigned a score of (one) for correct answer and (zero) for the wrong answer according to the model answer that was prepared by the researchers. Therefore, the total score was (23 degree), knowledge total score was turned into percentages, the total level of knowledge was considered poor if percent score < 60% (<14 degree), and good if percent score > 60% (17 degree). Researcher assesses the reliability for ethical leadership knowledge scale and was 0.82 [10].

Korean version ethical leadership at work questionnaire (KELW): The adapted questionnaire which developed by **Kim & Park** [18]. This scale was used to assess nursing managers' ethical leadership attitude. It includes (23 items) classified into three dimensions; Ethics of care (10 items); ethics of critique (7 items) and ethics of justice (6 items). Self-report measure of nursing managers ethical leadership was scored on a 5-points Likert scale, ranging from 1 (Never) to 5 (Always). And contains items as I try to ensure harmony in the organization and I seek to protect every individual dignity. The total score is the sum of the responses (115) to the items and are generated for each domain and the higher the score, the more one is considered has high level of ethical leadership attitude. The items were measured on Likert type scale where 1 represents never and 5 represents always. Scoring level was divided to two levels as the following < 60% indicated low level, 60 - < 75% indicated moderate level and > 75% indicated high level [18].

Workaholism analysis questionnaire: It was employed by **Aziz et al.** [19] to assess nursing managers' levels of workaholism. It consisted 29 items classified into five dimensions: Work-life conflict (11 items), work perfectionism (5 items), work addiction (5 items), unpleasantness (4 items) and withdrawal symptoms (3 items). Self-report measure of workaholism was scored on a 5-point Likert scale, ranging from 1 (Strongly disagree) to 5 (Strongly agree). The tool includes items as I have difficulty maintaining friendships and I ask others to check my work often. A 5-point Likert scale was used to rate the scale's components (1 being strongly disagreed and 5 being strongly agreed), with a higher score denoting a higher levels of workaholism. The scale exhibited internal consistency reliability 0.94 [19]. In our study reliability value was 0.91.

Data collection procedure: Data collection for this study was conducted from February, 2024 and completed by the end of October, 2024 covering 9 months. Expert panels evaluated the instruments' face validity to ensure that they faithfully captured the intended constructs in participants' context. In order to make sure that the tools' items were appropriate for the target culture and were clear and relevant. Potential participants were also asked for their input. Internal consistency was confirmed by use statistical techniques to assess reliability, such as Cronbach's alpha.

A pilot research was carried out with 10 nursing managers to evaluate the instruments' reliability, relevance, and intelligibility. Because the results of the pilot study showed that no modification were required and confirmed that the instruments were appropriate for the primary research. These participants were added to the main study. The process commenced after obtaining the necessary permissions.

Prior to data collection, researchers provided each nursing manager with a detailed explanation of the study objectives, emphasizing that participation was entirely voluntary. Informed consent was obtained from all participants as a prerequisite for their involvement. To ensure confidentiality and foster trust, researchers assured participants that their responses would remain confidential. The program was applied over a period of 9 months and consisted of five phases:

Preparatory phase: The first phase of the study included reviewing current, local, and international related literature. In addition, books, papers, periodicals, journals, and the internet were used to gain theoretical knowledge of many parts of the study then the researcher developed the ethical leadership training program.

The researcher attended the previously mentioned setting 2 days/ week from 9 am to 2 pm, afternoon from 2 am to 8 pm or night shifts from 9 pm to 11 pm according to the researcher suitable time. At the beginning of the interview the researcher greeted the nursing managers, introduced himself, explained the purpose and the aim of the study and took written consent and oral consent from those who refused to sign the consent to participate in the study. Data were collected by the researcher through the distribution of self-administered questionnaires (Tools no. I, II and III). The time needed to complete the questionnaire was (15 – 20 minutes).

Assessment (Pre-test) phase: The assessed nursing managers' knowledge and attitude regarding ethical leadership (Tool no. I and II), and their levels of workaholism before starting of ethical leadership training program (Tool no. III) was assessed.

Implementation (Action) phase: The researcher held an ethical leadership training program to increase nursing managers' knowledge and improve their attitude regarding ethical leadership. The ethical leadership training program included teaching methods such as modified lecture, small group discussion and brain storming. The researcher gave a handout to the participants (Brochures).

Ethical leadership training program was conducted for participants at small groups (no. =5) each group contained 15-25 participants and the program was repeated for each group of participants. Each group received sixth teaching sessions after work time (one session= one hour) along two days and there was a break between sessions and the sessions were held to each group uniquely. The cessions focused on

informing nursing mangers about concept, theories, conceptualization and importance of applying ethical leadership, antecedents, outcomes, obstacles of applying ethical leadership practices in healthcare environment, different strategies to overcome obstacles of applying different ethical leadership practices and steps necessary to build nursing managers ethical behaviors. The training program was held at the training class at Suez Canal University Hospitals.

Evaluation (Post-test) phase: During this phase, the effect of the ethical leadership training was reevaluated (post-test) by using the same tools, which were used before the implementation of the program implementation. Follow up phase: After three months, the researcher contacted with the participants to reassess their ethical leadership knowledge, attitude and their levels of workaholism. The researcher contacted with them at their work places.

Ethical approval: The study received ethical approval from the Research Ethics Committee of the Faculty of Nursing at Suez Canal University (No=59 30/1/2023 code 191/1-2023). All research procedures adhered to relevant laws, local regulations, and the ethical standards outlined in the Declaration of Helsinki, thereby safeguarding the rights and safety of all participants. At the outset of the survey, participants provided informed consent.

This was typically obtained through a consent form presented on the first page of the paper questionnaire. The form clearly detailed the study's purpose, emphasized the voluntary nature of participation, outlined confidentiality measures, and affirmed the participants' right to withdraw at any time without repercussions. By completing the survey questionnaire, participants implicitly indicated their agreement to participate, an approach consistent with ethical research standards that also maintains participant anonymity. Furthermore, the study's objectives were thoroughly explained to all participants, who were also assured that their involvement would be entirely voluntary and that their responses would remain strictly confidential. They received assurances that all collected information would be kept private, with access restricted solely to authorized members of the study team. Written informed consent was secured from each participant prior to any data collection.

Statistical analysis

Data analysis for the 100 nursing managers' survey responses was meticulously performed using SPSS 26.0 (IBM Inc., Chicago, IL, USA). In presenting the study data, categorical variables were reported through their number and corresponding percentage (No/%). To assess the relationships between ethical leadership practices and the varying levels of workaholism observed among nursing managers, Pearson's correlation analysis was employed. For the interpretation of statistical significance, a P-value $\leq$ 0.05 was considered statistically significant, while a P-value $\leq$ 0.01 indicated a highly statistically significant finding. This tiered approach to significance allowed for a nuanced understanding of the strength of observed correlations.

RESULTS

Table (1) revealed that 60% of nursing managers aged 25 - < 30 years, 84% of them were females, 54% of them were married, 45% were working in medical departments, almost all of them hold Bachelor degree of nursing science and 70% of them had 1 - < 5 Years of experience in current position.

Table (1): Personal and work related data of nursing managers (No. =100)

Personal data	No	%
Age		
20<25	18	18.0
25<30	**60**	**60.0**
30<40	18	18.0
>40	4	4.0
Gender		
Male	16	16.0
Female	**84**	**84.0**
Marital status:		
Married	**54**	**54.0**
Not married	42	42.0
Divorced	4	4.0
Widow	0	0.0
Work department		
Medical	**45**	**45.0**
Surgical	36	36.0
Critical	19	19.0
Educational qualification		
Bachelor degree of nursing science	**98**	**98.0**
Master degree of nursing	2	2.0
Doctoral degree of nursing	0	0.0
Years of nursing experience in current position		
1<5	**70**	**70.0**
5<10	22	22.0
10<20	8	8.0

Figure (1) showed that 28% of nursing managers have satisfactory level of knowledge at pre-program phase, which increased to 92% at post-program phase and 84% at follow up phase. Additionally, there is highly statistically significant difference between nursing managers levels of ethical leadership knowledge between pre, post and follow up phases (p < 0.01).
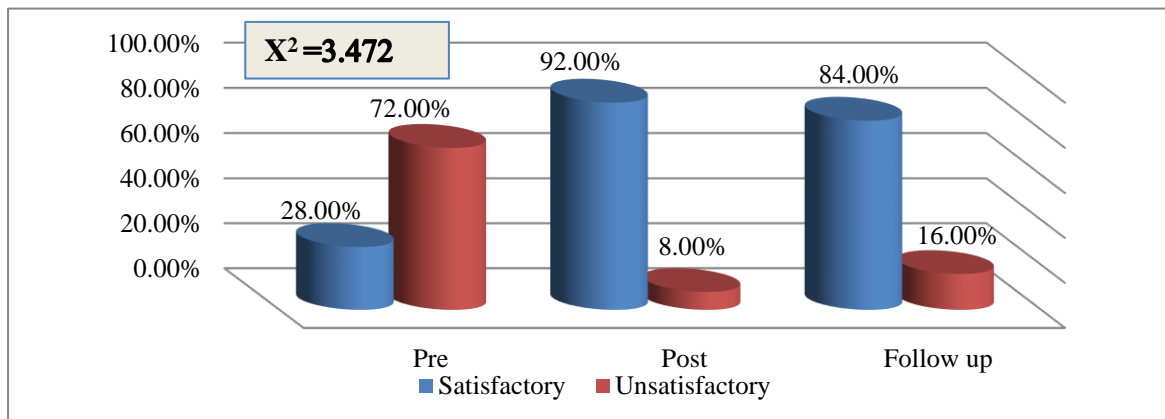
Figure (1): Distribution nursing managers' total knowledge regarding ethical leadership (no. =100).

Figure (2) revealed that 25% of nursing managers had high ethical leadership attitude level at pre-program phase, which increased to 94% at post-program phase and 62% at follow up phase. Furthermore, there was highly statistically significant difference between nursing managers ethical leadership perception levels between pre-, post- and follow-up phases (p<0.01).
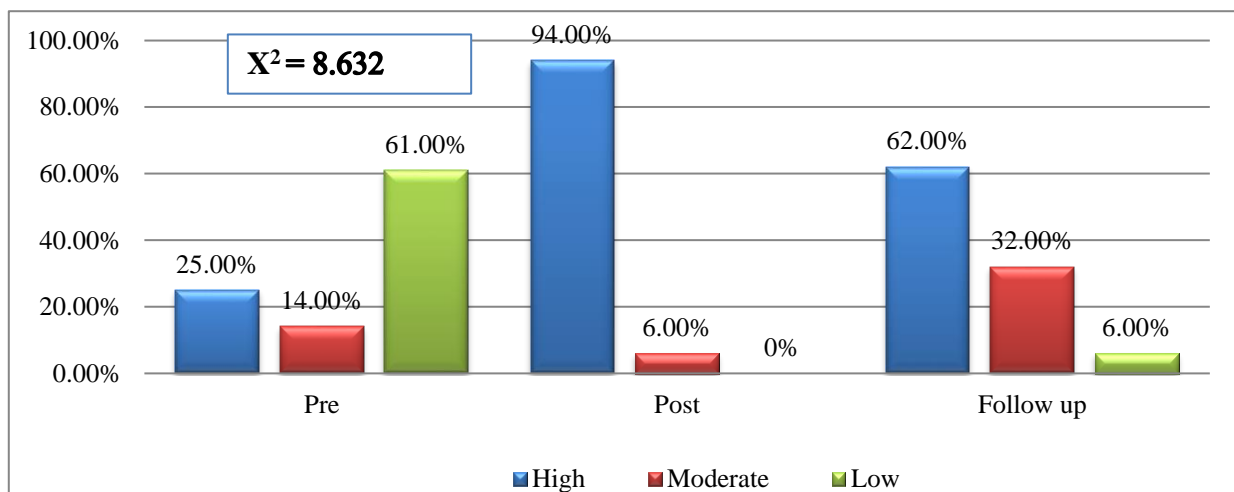

Figure (2): Distribution nursing managers' total attitude regarding ethical Leadership (no. =100).

Figure (3) showed that 57.1% of nursing managers had high levels of workaholism at pre-program phase, which decreased to 11.1 at post-program phase and then increased to 26.7% at follow up phase. Furthermore, there is highly statistically significant difference between nursing managers levels of workaholism between pre-, post- and follow up program phases (p<0.01).
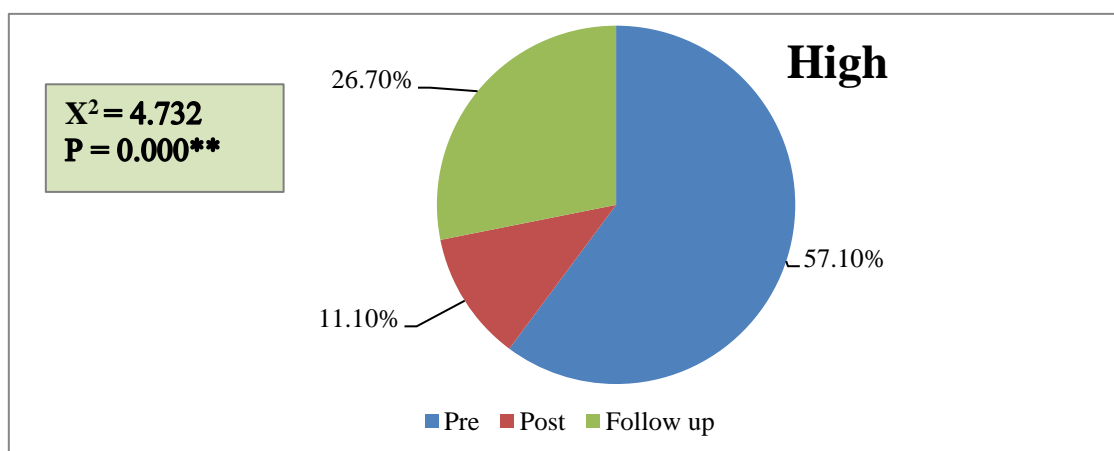

Figure (3): Distribution of nursing managers' total levels of workaholism (no. =100).

Table (2) revealed that there was positive statistical significant correlation between ethical leadership knowledge and attitude at pre-, post- and follow-up phases (p<0.05). Furthermore, there was negative statistical significant correlation between ethical leadership knowledge and attitude with workaholism at pre-, post- and follow-up program phases (p<0.01).

Table (2): Correlation between studied variables thorough the program phases (no. =100)

Study variables	Time	Ethical leadership knowledge		Ethical leadership perception		Ethical leadership practice		Workaholism	
		r	P	R	p	R	P	R	p
Ethical leadership knowledge	Pre			1.67	0.021*	0.24	0.001**	-0.56	0.022*
Ethical leadership attitude						0.86	0.000**	-0.71	0.034*
Workaholism									
Ethical leadership knowledge	Post			0.637	.024*	0.835	0.001**	-0.616	0.001**
Ethical leadership attitude						0.384	0.001**	-0.818	0.002**
Workaholism								-0.385	0.003**
Ethical leadership knowledge	Follow up			0.553	0.013*	0.985	0.005*	-0.491	0.0001**
Ethical leadership attitude						0.704	0.001**	-0.873	0.0001**
Workaholism								-0.682	0.0001**

* Correlation is significant at < 0.05   ** Correlation is highly significant at < 0.01.

DISCUSSION

The current study aimed to assess the effect of ethical leadership awareness on nursing managers' levels of workaholism. Through, determining the effect of ethical leadership awareness program on nursing managers' ethical leadership knowledge and attitude pre- and post-program implementation, determining the effect of ethical leadership awareness program on levels of workaholism among nursing managers' pre- and post-program implementation and determining the relationship between nursing managers ethical leadership knowledge, attitude and their levels of workaholism. According to the current study, less than two thirds of nursing managers aged from 25 to 30 years, the majority of them were females, more than half of them were married, less than half of them were working in critical departments, almost all of them hold Bachelor degree of nursing science and more than two thirds of them had from 1 to 5 years of experience in current position.

Regarding nursing managers' ethical leadership total knowledge level, the level of knowledge shifted from nearly three quarters of nursing managers had unsatisfactory level at pre-program phase to most of them had satisfactory level at post-program phase with highly statistical significant difference between nursing managers' levels of ethical leadership knowledge between pre-, post- and follow-up phases. From a researcher's perspective, this may be due to training programs that improve nursing managers' understanding of their responsibilities and equip them with the essential knowledge and skills. Additionally, ethical leadership training programs create opportunities for managers to broaden their knowledge,

acquire new techniques, and enhance their existing abilities.

The present study's findings align with **Saad et al.** [10], demonstrating that while only a minority of head nurses initially possessed good ethical leadership knowledge, this significantly increased to a majority after program implementation and at follow-up, showing a highly statistically significant improvement across these phases. This mirrors Sabzehband's [20] call for professional development in ethical leadership and parallels **Ali et al.** [21] who observed a statistically significant improvement in head nurses' knowledge of authentic leadership post-program. These consistent results underscore the effectiveness of targeted interventions in bolstering ethical leadership knowledge and competencies among nursing managers.

The results of the study revealed that that most of nursing managers had high ethical leadership attitude level at post-program phase compared to one quarter of them at pre-program phase. Nearly two thirds of nursing managers' high ethical leadership attitude level at follow-up phase with near one third at moderate level. Moreover, there was highly statistical significant difference between nursing managers ethical leadership attitude levels between pre-, post- and follow-up phases. This obvious shifting in responses reflected how much nursing managers had positive perception toward ethical leadership perception. From a researcher's perspective, this may reflect the program's effectiveness in improving participants' ethical awareness, leadership skills, and their capacity to address complex ethical challenges. Additionally, nurse managers may not have received formal training in ethical leadership, which could lead to uncertainty about how to effectively

incorporate ethical principles into their leadership practices or a lack of awareness regarding the ethical issues they face regularly. These results are supported by the study conducted by **Ali et al.** [21], who revealed that there was a statistically significant correlational improvement in the studied head nurses' attitude regarding authentic leadership after implementation of the program. In contrast with the present study results, **El Naggar & El Demerdash** [22] revealed that nearly half of the head nurses had high perception level of overall ethical leadership. Also, **Barkhordari-Sharifabad & Mirjalili** [23] reported that the perception level of ethical leadership and all of its dimensions was at moderate level.

The results of the present study showed that more than half of nursing managers had high levels of workaholism at pre-program phase compared to more than one tenth of them at post-program phase and then increased to slightly more than one quarter of them at follow-up phase. Furthermore, there was highly statistical significant difference between nursing managers' levels of workaholism between pre-, post- and follow-up program phases. From a researcher's perspective, this may be attributed to the program's encouragement for nursing managers to delegate tasks and empower their teams to assume greater responsibility. Consequently, they may have become more comfortable stepping back and trusting their staff to handle specific aspects of the job, which in turn reduced the need for constant involvement and alleviated their workload. These results are similar to the study performed by **Khalidi et al.** [24], who showed that more than half of nurses had high level of workaholism. In contrast with the current study, **Mahran et al.** [25] showed that nearly three quarters of nursing leaders had low levels of workaholism.

The correlation between nursing managers' knowledge, perception was assessed at the current study. The results revealed that there were positive statistical significant correlation between ethical leadership knowledge and perception at pre-, post- and follow-up phases. From a researcher's perspective, this may be due to the fact that knowledge serves as a reference point for perception. A deeper understanding of ethical leadership fosters a more informed, thoughtful, and consistent view of ethical behavior in nursing managers' leadership roles. Furthermore, a manager who comprehends ethical leadership is more inclined to act in ways that align with those principles.

These results are in the same line with **Saad et al.** [10] who concluded that there was a highly positive statistical significant correlation between head nurses' ethical leadership knowledge and attitude at post- and follow-up program phases. On the same track **Mohamed et al.** [26] in their study about enhanced nurse managers' legal and ethical aspects at Benha University Hospital revealed that there was a statistical significant positive correlation between nurse manager's total knowledge scores and attitude scores. Additionally, the

results of the present study revealed that there was highly statistical significant negative correlation between nursing managers' ethical leadership knowledge and attitude with their levels of workaholism at post and follow-up program phases. From a researcher's perspective, this may be attributed to the enhancement of nursing managers' knowledge, perception, and practice of ethical leadership. This improvement can strengthen their ethical leadership principles, such as balancing work responsibilities, establishing healthy boundaries, and promoting well-being, which may help reduce workaholism and lower their inclination to engage in workaholic behaviors.

Morkevičiūtė & Endriulaitienė [16], in their study about the role of a perceived ethical leadership style in the relationship between workaholism and occupational burnout found that there was a negative relationship of a perceived ethical leadership with general workaholism.

Additionally, **Morkevičiūtė & Endriulaitienė** [27] in their study about uncovering a relationship between leadership behaviour and employees' workaholism revealed that ethical leaders' attitude is inversely related to being a workaholic.

In the same line with the current study, **Mahran et al.** [25] revealed that there was highly statistically significant negative relation between nursing supervisors' ethical leadership behavior and their levels of workaholism. Despite all the previously mentioned supportive studies, **Wibawa & Takahashi** [28] indicated that ethical leadership has an insignificant effect on workaholism.

Practical implications: Our findings highlight the negative associations between nursing managers' ethical leadership knowledge and attitude with their levels of workaholism, healthcare organizations should implement targeted educational programs and workshops for all managerial levels on the concept theories, importance and positive outcomes of ethical leadership. Educational programs regarding concept, risks and prevention of workaholism should be implemented. Policy recommendations should include hiring should be based on their ability to manage their time and work effectively and appreciate work-life balance. Lastly, make it plain to nursing managers what are the ethical and accepted behaviors within the organization.

CONCLUSION

This study demonstrated that an ethical leadership awareness program significantly enhanced nursing managers' ethical leadership knowledge and attitude, concurrently leading to a substantial reduction in their workaholism levels. A statistically significant positive correlation was observed between ethical leadership knowledge and attitude, while both factors consistently exhibited a statistically significant negative correlation with workaholism across all program phases.

ACKNOWLEDGMENTS

REFERENCES

1. **Hakimi H, Joolaee S, Farahani M *et al.* (2020):** Moral neutralization: Nurses' evolution in unethical climate workplaces. BMC Medical Ethics, 21 (1): 1–10. https://doi.org/10.1186/s12910-020-00558-3.
2. **Kim S, Jeong S, Seo M (2022):** Nurses' ethical leadership and related outcome variables: Systematic review and meta-analysis. Journal of Nursing Management, 30 (7): 2308-2323.
3. **Madarasi V, Hadházi E (2024):** The Role Of Leader In Work Addiction. International Journal of Engineering and Management Sciences, 9 (4): 85-97.
4. **Niinihuhta M, Häggman-Laitila A (2022):** A systematic review of the relationships between nurse leaders' leadership styles and nurses' work-related well-being. International journal of nursing practice, 28 (5):1-9.
5. **Andersen F, Djugum M, Sjåstad V, Pallesen S (2023):** The prevalence of workaholism: a systematic review and meta-analysis. Frontiers in Psychology, 14 (1252373): 1-18. DOI 10.3389/fpsyg.2023.1252373.
6. **Abdi B, Alavi A (2024):** The Relationship between Work Engagement and Workaholism and Nurses' Job well-being. Journal of Social Behavior and Community Health, 8 (2): 1449-1456.
7. **Ali M, Ahmed E, Hasanin A (2024):** The Relation between Workaholism and the Quality of Nursing Care among Staff Nurses. Journal of Nursing Science Benha University, 5 (1): 198-209.
8. **Wu Y, Fu Q, Akbar S, Samad S, Comite U, Bucurean M, Badulescu A (2022):** Reducing healthcare employees' burnout through ethical leadership: the role of altruism and motivation. International Journal of Environmental Research and Public Health, 19 (13102): 1-17.
9. **Maisonneuve F, Groulx P, Chenevert D, Grady C, Coderre-Ball A (2023):** Investigating Ethical Climate and Workaholism in Healthcare. Annals of Family Medicine, 21 (1): 1-7.
10. **Saad E, Ebrahem A, Mekawy S (2021):** Ethical Leadership Educational Program for Head Nurses and its Influence on Staff Nurses Organizational Pride. Egyptian Journal of Health Care, 12 (2): 1899-1914.
11. **Peng A, Kim D (2020):** A meta-analytic test of the differential pathways linking ethical leadership to normative conduct. Journal of Organizational Behavior, 41 (4): 348-368.
12. **Kuenzi M, Mayer D, Greenbaum R (2020):** Creating an ethical organizational environment: The relationship between ethical leadership, ethical organizational climate, and unethical behavior. Personnel Psychology, 73 (1): 43-71.
13. **Ahmed M, Khan M (2023):** Beyond the universal perception: Unveiling the paradoxical impact of ethical leadership on employees' unethical pro-organizational behavior. Heliyon, 9 (11): 1-16.
14. **Jia K, Zhu T, Zhang W *et al.* (2022):** The linkage between ethical leadership, well-being, work engagement, and innovative work behavior: the empirical evidence from the higher education sector of China. International journal of environmental research and public health, 19 (5414): 1-15.
15. **Khan M, Mahmood A, Shoaib M (2022):** Role of ethical leadership in improving employee outcomes through the work environment, work-life quality and ICT skills: A setting of China-Pakistan economic corridor. Sustainability, 14 (11055): 1-18.
16. **Morkevičiūtė M, Endriulaitienė A (2017):** The role of a perceived ethical leadership style in the relationship between workaholism and occupational burnout. International Journal of Psychology: A Biopsychosocial Approach, 20: 61-82.
17. **Kasemy Z, Abd-Ellatif E, Abdel Latif A *et al.* (2020):** Prevalence of workaholism among Egyptian healthcare workers with assessment of its relation to quality of life, mental health and burnout. Frontiers in Public Health, 8: 581373.
18. **Kim J, Park E (2015):** A validation study of the modified Korean version of ethical leadership at work questionnaire (K-ELW). Journal of Korean Academy of Nursing, 45 (2): 240-250.
19. **Aziz S, Uhrich B, Wuensch K *et al.* (2013):** The Workaholism Analysis Questionnaire: Emphasizing work-life imbalance and addiction in the measurement of workaholism. Journal of Behavioral and Applied Management, 14 (2): 71-86.
20. **Sabzehband P, Jamasbi M, Tapak L *et al.* (2022):** Relationship between Head Nurses' Ethical Leadership and Demographic Characteristics with General Self-Efficacy of ICU Nurses in Educational-Treatment Centers of Hamadan University of Medical Sciences, Hamadan, Iran, 2019. Avicenna Journal of Nursing and Midwifery Care, 30 (2): 124-133.
21. **Ali A, Saad E, Alshammari F (2019):** Effect of authentic leadership educational program for head nurses on staff nurses' organizational commitment. Evidence-Based Nursing Research, 1 (2): 12-12.
22. **El Naggar F, El Demerdash S (2023):** Head Nurses' Ethical Leadership and its Relation to Staff Nurses' Job Stress. Tanta Scientific Nursing Journal, 31 (4): 206-220.
23. **Barkhordari-Sharifabad M and Mirjalili N (2020):** Ethical leadership, nursing error and error reporting from the nurses' perspective. Nursing ethics, 27 (2): 609-620.
24. **Khalidi S, Sheikhzakariaie N, Olyaee N *et al.* (2016):** Relationship between workaholism and personality factors among nurses: A questionnaire-based cross-sectional study. J Chem Pharm Sci., 9 (4): 3129-35.
25. **Mahran H, Abd Al Fattah M, Saleh N (2022):** Relationship between ethical leadership and workaholism among nursing supervisors as perceived by staff nurses. Egyptian Nursing Journal, 19 (2): 79-87.
26. **Mohamed S, Taie E, El-Sayed H (2021):** Enhance nurse managers' legal and ethical aspects at Benha university hospital. Journal of Nursing Science Benha University, 2 (2): 241-260.
27. **Morkevičiūtė M, Endriulaitienė A (2020):** Uncovering a relationship between leadership behaviour and employees' workaholism: a systematic review. Management of Organizations: Systematic Research, 84 (1): 17-29.
28. **Wibawa W, Takahashi Y (2021):** The effect of ethical leadership on work engagement and workaholism: examining self-efficacy as a moderator. Administrative Sciences, 11 (50): 1-12.