

Effect of Ethical Leadership Training Program on Levels of Workaholism among Nursing Managers at Suez Canal University Hospitals

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Abstract

Background: Nursing managers ethical leadership knowledge, perception and practice can prevent them from falling into workaholism through, promoting work-life balance, setting healthy boundaries, modeling sustainable work practices and balancing their ethical responsibilities with their own self-care. **Aim of the study:** The study aimed to assess the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University hospitals. **Design:** Quasi-experimental research design. **Setting:** The study was conducted at Suez Canal University Hospitals. **Sample:** Comprehensive sample include: All nursing managers working at Suez Canal University Hospitals (No=100). **Tools:** Four tools were used; Ethical leadership knowledge questionnaire; **Part (1):** Personal and work related data sheet and **Part (2):** Ethical leadership knowledge questionnaire, Korean version ethical Leadership at work questionnaire, observational ethical leadership scale, and workaholism analysis questionnaire. **Results:** 28%, 25% and 39% of nursing mangers had satisfactory knowledge, high perception and adequate practices of ethical leadership pre-program implementation respectively, which increased to 92%, 94% and 86% of them had satisfactory knowledge, high perception and adequate practices post-program implementation respectively. Conversely, 57.1% of nursing managers had high level of workaholism at pre-program implementation which decreased to 11.1 post program implementation. **Conclusion:** There were positive statistical significant correlation between ethical leadership knowledge, perception and practices at all program phases. While, there was negative statistical significant correlation between nursing mangers ethical leadership knowledge, perception and practices with workaholism at all program phases. **Recommendations:** Conducting educational programs to raise awareness of the concept and risks of workaholism and how to prevent it.

Keywords: Ethical Leadership, Nursing Managers, Training Program, Workaholism

1. Introduction

Nursing managers' lack of ethical awareness can lead to unethical actions that stain the profession. Ethical competence

begins with ethical sensitivity and is established through ethics knowledge, reflection and action, and nurses' ethical sensitivity is influenced by the ethical and moral behaviors and attitudes of nursing

managers. Employees trust managers who are role models for ethical practice and are likely to also act ethically (**Hakimi et al., 2020; Kim et al., 2022**).

Madarasi & Hadházi, (2024), 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.

Nursing leaders play a crucial role in the success of healthcare organizations. 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, leaders' well-being affects that of their subordinates, patients and the overall organization (**Niinihuhta & Häggman-Laitila, 2022**). Thus, the manager has a great responsibility for how managers and

employees relate to work and how they draw the line between a healthy quantity and quality of work and their private lives, which can have an impact on workaholism (**Madarasi & Hadházi, 2024**).

Ethical leadership plays a pivotal role in shaping employees' behaviors within organizations, exerting a profound influence through various mechanisms. Firstly, ethical leaders act as powerful role models by consistently demonstrating ethical conduct in their decision-making and interactions. Secondly, building trust and respect among their team members, fostering a positive work environment. Thirdly, ethical leaders contribute to the creation of an ethical organizational culture. Fourthly, making decisions based on moral principles and encouraging employees to consider ethical factors in their own decision-making processes. Finally, ethical leaders enhance employees' engagement and commitment (**Peng & Kim, 2020; Kuenzi et al., 2020; Ahmed & Khan, 2023**).

Saad et al., (2021), mentioned that ethical leadership is always linked to favorable outcomes for nurses and healthcare organizations these outcomes include the perceptions of organizational justice, job satisfaction, organizational commitment,

organizational support, organizational identification, organizational trust, motivation, turnover intention and workaholism.

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 their effectiveness in guiding their teams (Andersen et al., 2023). According to Abdi & Alavi, (2024), workaholism is linked to a wide variety of negative outcomes, such as exhaustion, psychological strain, and distress, sleeping difficulties, cardiovascular disease, elevated systolic blood pressure, and metabolic syndrome. Workaholic nurses exhibit a poor quality of social relationships outside the work and experience reduced job and life satisfaction. Although workaholic nursing managers, work extremely hard and for long hours, they do not seem to be productive in the long run.

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. Accordingly, 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) (Ali et al., 2024).

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 (Wu et al., 2022; Maisonneuve et al., 2023).

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 (Jia et al., 2022; Khan et al., 2022; Maisonneuve et al., 2023). Therefore, the current study aimed to assess the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals.

Significance of the Study:

Ethical leadership affects positively on nursing managers and health care organizations as whole. In addition nursing managers are at high risk for developing workaholism due to the nature of their work and in ability to separate them self's from work demands. Workaholism affects negatively on managers physical health and performance as it causes serious health problems as hypertension and work related insomnia and it was found that ethical leadership practices affects workaholism.

A study was conducted in Sohag-Egypt; Confirmed that ethical leadership has a positive effect on improving staff performance (Mahran et al., 2022). Also descriptive correlational research design was conducted at one hospital of Alexandria University Hospital, the result of the study revealed a positive significant correlation

between ethical leadership behavior and organizational identification (Awad & Khalifa, 2018).

In addition a study was conducted by Morkevičiūtė & Endriulaitienė (2017) revealed that managers who are characterized by ethical leadership have lower levels of workaholism than those who less characterized by ethical leadership. Also a study on workaholism was conducted in Egypt among health care workers reported that there was a significant association between workaholism and psychologically poor-health and poor quality of life among health care workers. Critical specialty healthcare workers showed association between workaholism, burnout and pro-inflammatory markers (Kasemy et al., 2020).

As a result, further research into the existing study variables may provide some useful insights into the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals.

The Aim of the study:

This study aimed to assess the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals. Through;

1- Determining the effect of ethical

leadership training program on nursing managers' ethical leadership knowledge, perception and practice at Suez Canal University Hospitals pre and post program implementation.

2- Determining the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals pre and post program implementation.

Research Hypothesis:

1- H1. There is a positive effect of ethical leadership training program on nursing managers' ethical leadership knowledge, perception and practice at Suez Canal University Hospitals after program implementation.

H2. There is a positive effect of ethical leadership training program on nursing managers' levels of workaholism at Suez Canal University Hospitals after program implementation.

2. Subject and Method

Research design:

Quasi-experimental research design was adopted to conduct this study. The researcher adopted Pretest-posttest research design to achieve the aim of the study. Quasi-experimental design aims to establish a cause-and-effect relationship between an

independent and dependent variable and participants are assigned to groups based on non-random criteria and can include a single group or 2 or more groups and this research design used most often in the nursing literature (Siedlecki, 2020).

Setting of the study:

This study was carried out at different departments and units in Suez Canal University hospitals that include; educational hospital contains 27 departments, specialized surgery hospital contains 9 departments and oncology hospital contains 2 departments.

Sample:

Comprehensive sample (No. = 100) that included all nursing managers working at Suez Canal University Hospitals.

Tools of data collection:

Four tools were used were used for data collection to carry out this study, which included:

Tool I: *Ethical leadership knowledge Questionnaire: This tool was developed by the researcher based on review of literatures (Langlois, et al., 2014; Yasir & Rasli, 2017 and Jeon, et al., 2018) and 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: This tool aimed to assess nursing managers' knowledge regarding ethical leadership. It contains items as ethical leaders promote ethical conduct through and ethical leadership is based on two basic theories called. For the knowledge items, a correct response = 1 and the incorrect response = 0.

The scoring system of ethical leadership knowledge calculated as: the correct answer was scored 1 and the incorrect answer was scored zero. The knowledge was considered satisfactory when the percent score was 60% or more and unsatisfactory when less than 60%. The validity of the tools was assessed to check the relevance, coverage and clarity of questions by a jury of experts as all of the tools.

Tool (II): Korean version ethical Leadership at work questionnaire (KELW):

The adapted questionnaire which developed by Kim & Park (2015) and modified after extensive reviewing of literature. This scale was used to assess nursing managers' self-ethical leadership behaviors at work. It includes (23 items)

classified into three dimensions; Care (10 items); Critique (7 items) and Justice (6 items). Self-report measure of nursing managers ethical leadership will be 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 scoring system of the questionnaire was calculated as: 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. The items were measured on Likert type scale where 1 represents never and 5 represents always and scoring system was performed based on cut of point scale. Scoring level was divided to three levels as the following < 60% indicated low level, (60 - <75%) indicated moderate level, and (> 75%) indicated high level.

Tool (III): Observational ethical leadership scale:

The adapted questionnaire which developed by Yasir, (2017) and Yasir & Rasli, (2018), and modified after extensive reviewing of literature. This scale was used to determine the presence of altruism, integrity, courage, ethical guidance and fairness in an individual having a supervisory position such

as nursing managers. It includes (17 items) classified into five dimensions; Altruism (3 items); Courage (3 items); Ethical guidance (4 items); Integrity (3 items); Fairness (4 items). And contains items as listens to what employees have to say and makes fair and balanced decisions.

The scoring system was calculated as: The total score is the sum of the responses to the items (34) 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. The items were measured on Likert type scale where 1 represents not done and 2 represents done and scoring system was performed based on cut of point scale. Scoring level was divided to three levels as the following < 60% indicated inadequate practice and >60% indicated adequate practice.

Tool (IV): Workaholism Analysis Questionnaire:

The adopted questionnaire which developed by Aziz et al., (2013) and modified by Mahran et al., (2022) was used to assess nursing supervisors' levels of workaholism. The questionnaire include (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 will be 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.

The scoring system was calculated as: The total score is the sum of the responses (145) to the items and are generated for each domain and the higher the score, the more one is considered has high level of workaholism. The items were measured on Likert type scale where 1 represents strongly disagree and 5 represents strongly agree and scoring system will be performed based on cut of point scale. Scoring level was divided to three levels as the following < 60% indicated low level, (60 - <75%) indicated moderate level, and (> 75%) indicated high level.

Validity and Reliability of tools:

Face validity was done by a panel of five experts who revised the tools for clarity, relevance, applicability and ease for implementation and according to their opinion modification was applied. Jury consisted of four experts in the nursing administration and one expert in psychology. Tools reliability was measured by using Alpha Cronobahch s' coefficient test. The reliability of ethical

leadership knowledge, perception, practice and workaholism tools was (0.82, 0.87, 0.89 and 0.91) respectively.

Ethical considerations:

The present research was conducted after approval of the Research Ethics Committee (REC) in the Faculty of Nursing, Suez Canal University (No=59 30/1/2023 code 191/1-2023). It was conducted on all Nursing Managers at Suez Canal University Hospitals. Ethical considerations regarding nursing managers' wellbeing and data confidentiality was considered by the researcher and written informed consent was signed by nursing managers. While, those who refused to sign the consent an oral consent was taken from them before commencing the study. The participants had the right to refuse participation and withdraw at any time.

Pilot study:

A pilot study was conducted on 10% of total number of nurses (10) which are included in the study sample to investigate and measure the feasibility, objectivity, applicability, clarity, adequacy of the study tools and to determine possible problems in the methodological approach or instrument. The pilot study was conducted over a period of four weeks from [1-12-2023] to [1-1-2024]. This timeframe allowed for the testing of research instruments, assessment of

procedures, and identification of potential challenges prior to the main study.

Field of work:

Before conducting the study a formal approval from The Vice Dean of Post Graduate Studies and Research at the Faculty of Nursing Suez Canal University and the approval of ethical committee (No=59 code 191/1-2023) then acceptance letters from the director of Suez Canal University Hospitals were obtained to conduct the current study, also purpose of the study and methods of data collection were explained to the nursing director to obtain her permission to conduct the study. Once the official permission was granted to proceed with proposed study, the researcher initiated data collection process. 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 to develop tools for data collection. The researcher developed the ethical leadership training program and modifies the data collection questionnaires according to experts' opinions. The study was carried out from the beginning of February,

2024 and completed at the end of October, 2024 covering 9 months. The researcher attended the previously mentioned setting 2 days/ week from 9am to 2 pm, afternoon from 2am to 8 pm or night shifts from 9 pm to 11 pm according to the researcher suitable time.

Assessment (pretest) phase:

At the beginning of the interview the researcher greeted the nurses, 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 was collected by the researcher through the distribution of self-administered questionnaires (Tools no. I, II and IV). The time needed to complete the questionnaire was (20 – 30 minutes). The observational check list (tool no III) was filled by the researcher based on nursing managers actual practice.

The researcher assessed nursing managers' knowledge regarding ethical leadership (**Tool no. I**), measured nursing managers' self-ethical leadership (**Tool no. II**), observed ethical leadership behavior among nursing managers 3 times at different working days (**Tool no. III**), and assessed their levels of workaholism before starting of ethical leadership training program (**Tool no. IV**).

Implementation (action) phase:

The researcher held an ethical leadership training program to increase nursing managers' knowledge regarding ethical leadership and encourage conducting ethical behavior. 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 contains 15-25 participant 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 each session and the sessions were held to each group uniquely. The training program was held at the training class at Suez Canal University hospitals. The program outlines were divided in to sessions as the following:

The first session: The researcher gave participants the pretest to assess their knowledge, perception of ethical leadership and their levels of workaholism. Then the researcher gave the participants theoretical part about history, and concept of ethical leadership in nursing. **The second session:**

The researcher took feedback about the previous session and introduced the objectives of the new session which included the theories, conceptualization and importance of applying ethical leadership. **The third session:** The researcher took feedback about the previous session and introduced the objectives of the new session which included outcomes, characteristics and different practices of ethical leaders.

The fourth session: The researcher took feedback about the previous session and introduced the objectives of the new session which included the relationship between ethical leadership practices and workaholism. **The fifth session:** The researcher took feedback about the previous session and introduced the objectives of the new session which included discussion regarding barriers and strategies to overcome barriers of implementing ethical leadership. **The sixth session:** The researcher took feedback about the previous session and introduced the objectives of the new session which included steps necessary to build nursing managers ethical behaviors and then the researcher gave them post-test to assess the changes in participants knowledge, perception regarding ethical leadership.

Evaluation (posttest) phase:

During this phase, the effect of the ethical leadership training was reevaluated (posttest) by using the same tools (**Tools no. I, II, III & IV**) which were used before the implementation of (pretest). Immediate (posttest) evaluation was conducted after the implementation to reevaluate nursing managers' knowledge and perception of ethical leadership. Additionally ethical leadership practice and workaholism were measured within one month after program implementation (posttest).

Follow up Phase:

After three months, the researcher contacted with the participants to observe the ethical leadership behavior among nursing managers 3 times at different working days, assessed nursing managers' knowledge regarding ethical leadership, measured nursing managers' self-ethical leadership and reassessed their levels of workaholism. The researcher contacted with them at their work places.

Administrative design:

Before conducting the study an official permission was taken from the Dean of Faculty of Nursing-Suez Canal University to the Director of Suez Canal University Hospitals and delivered to the directors of medical, surgical and critical care units of the

educational, specialized surgery and oncology hospitals in order to obtain approval to conduct the study after explanation of the title and aim of the study.

Statistical Analysis:

The collected data was coded and transformed in to coding sheets. Then, statistical analysis was done using SPSS system files (SPSS package version 22). The normality test (Kolmogorov Smirnov test) was done to identify the types of data. Data was parametric, T test and one way ANOVA were used to compare variables and Pearson test was used to find the correlation between variables and linear regression was used to find the predicting factors of independent variables. Highly statistical significance was considered at ($p < 0.01$) and statistical significance was considered at ($P < 0.05$). Descriptive statistics including frequency distribution, mean score and standard deviation were used to describe different characteristics of variables.

3. Results

Table (1): Reveals that 60% of nursing managers aged from 25 to less than 30 years, 84% of them were females, 54% of them were married, 45% working in medical departments, 74 % of them employed in

educational hospital, almost all of them hold Bachelor degree of nursing science and 70% of them had from 1 to less than 5 Years of experience in current position.

Figure (1): Shows 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 statistical significant difference between nursing managers levels of ethical leadership knowledge between pre, post and follow up phases ($p < 0.01$).

Figure (2): Reveals that 25% of nursing managers have high ethical leadership perception level at pre-program phase which increased to 94% at post program phase and 62% at follow up phase. Moreover there is highly statistical significant difference between nursing managers ethical leadership perception levels between pre, post and follow up phases ($p < 0.01$).

Figure (3): Indicates that 39% of nursing managers have adequate practices at pre-program phase which increased to 86% at post-program phase and 73.2% at follow up phase. Moreover there is highly statistical significant difference between nursing managers ethical leadership practice levels

between pre, post and follow up program phases ($p<0.01$).

Figure (4): Shows that 57.1% of nursing managers have 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 statistical significant difference between nursing managers levels of workaholism between pre, post and follow up program phases ($p<0.01$).

Table (2): Shows that age and work department are highly statistically significant predicting factors of nursing managers workaholism ($p<0.01$), while gender and marital status are statistically significant predicting factors of nursing managers' workaholism ($p<0.05$).

Table (3): Reveals that there are positive statistical significant correlation between ethical leadership knowledge and perception at pre, post and follow up phases ($p<0.05$). Additionally, there is highly statistical significant positive correlation between ethical leadership knowledge and practice and between ethical leadership perception and practice at all program phases ($p<0.01$). Moreover, there are negative statistical significant correlation between ethical

leadership knowledge and perception with workaholism at pre-program phases ($p<0.05$). While, there is highly statistical significant negative correlation between ethical leadership knowledge, perception and practice with workaholism at post and follow up program phases ($p<0.01$).

4. Discussion

Ethics education has become more prominent in nursing curricula and academic settings; however, there are still considerable gaps in equipping nurse leaders to navigate the complexities of the modern healthcare environment. While traditional nursing programs introduce foundational ethical concepts such as beneficence, autonomy, and justice, the application of these principles in practice remains inconsistent. To bridge this gap, implementing educational programs that equip nurse leaders with advanced competencies in ethical leadership could be a viable solution (Ali et al., 2024).

Therefore the current study aimed to assess the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals through; 1- determining the effect of ethical leadership training program on nursing managers' ethical leadership

knowledge, perception and practice at Suez Canal University Hospitals pre and post program implementation and 2- determining the effect of ethical leadership training program on levels of workaholism among nursing managers at Suez Canal University Hospitals pre and post program implementation.

According to the current study, less than two thirds of nursing managers aged from 25 to less than 30 years, the majority of them were females, more than half of them were married, less than half of them working in critical departments, nearly three quarters of them employed in educational hospital, 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 (Table 1).

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 (Figure 1). 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.

Accordingly with the present study findings **Saad et al., (2021)**, revealed that minority of head nurses had good knowledge level at the preprogram phase while it increased to majority of them at post program and follow up phases and there was highly statistical significant difference between head nurses levels of ethical leadership knowledge between pre, post and follow up phases. Additionally, **Sabzehband (2022)**, indicated the need for professional growth and development in ethical leadership. Also, **Ali et al., (2019)**, revealed that there was a statistically significant correlational improvement in the studied head nurses' knowledge regarding authentic leadership after implementation of the program.

The results of the study revealed that that most of nursing managers had high ethical leadership perception level at post-program phase compared to one quarter of them at pre-program phase. Nearly two thirds

of nursing managers' high ethical leadership perception level at follow-up phase with near one third at moderate level. Moreover there was highly statistical significant difference between nursing managers ethical leadership perception levels between pre, post and follow up phases (Figure 2). 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 were supported by the study conducted by **Ali et al., (2019)**, who revealed that there was a statistically significant correlational improvement in the studied head nurses' perception regarding authentic leadership after implementation of the program. Conversely, with the present study results **El Naggar & El Demerdash,**

(2023), revealed that nearly half of the head nurses had high perception level of overall ethical leadership. Also, **Barkhordari-Sharifabad & Mirjalili, (2020)**, reported that the perception level of ethical leadership and all of its dimensions was at moderate level.

The results of the present study indicated that the majority of nursing managers had adequate ethical leadership practices at post-program phase compared to nearly two fifth of them had adequate practices at pre-program phase. Also, nearly three quarters of nursing managers had adequate ethical leadership practices at follow up phase. Moreover there was highly statistical significant difference between nursing managers ethical leadership practice levels between pre, post and follow up program phases (Figure 3). From a researcher's perspective, this may be linked to an enhanced recognition, understanding, and appreciation of the significance of ethical leadership behaviors and their positive outcomes. Additionally, the program likely played a role in increasing nurse managers' confidence in their capacity to lead ethically.

Saad et al., (2021), supported the present study results and showed that less than one quarter of head nurses had high ethical leadership skills level at preprogram

phase, which increased to most of them at post program and follow phases. Additionally these results were in harmony with **El Naggari & El Demerdash, (2023)**, who found that more than one third of staff nurses had high of overall head nurses' ethical leadership. Also **Aboelenein & Mostafa, (2023)**, revealed that preprogram minority of head nurses had high level of total authentic leadership style which improved to be most and majority of at immediate and three months post program respectively with highly statistical significant difference. Accordingly, there was highly statistically significant improvement in head nurses' skills regarding transformational leadership immediate post program and three months follow up the program than pre-program scores (**Abd-Elrhman & Abd-Allah, 2018**).

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 (Figure 4).

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 were similar with the study performed by **Khalidi et al., (2016)**, who showed that more than half of nursing managers had high levels of workaholism. Additionally, these results were supported by **Borges et al., (2021)**, who revealed that nursing managers had high levels of workaholism. In contrast with the current study **Mahrn et al., (2022-a)**, showed that nearly three quarters of nursing managers had low levels of workaholism. Also, these results were in disagreement with the study performed by **Gao et al., (2025)**, who revealed that nursing managers exhibited moderate levels of workaholism.

Identifying the factors that influence nursing managers' workaholism is essential for developing effective strategies to manage this phenomenon. The results of the present study indicated that age and work department

was highly statistically significant predictors of nursing managers' workaholism. Additionally, gender and marital status were also found to be statistically significant predictors of workaholism among nursing managers (Table 2). From researcher point of view, this may be because nursing manager's work habits, attitudes about work, and capacity to balance work with other aspects of life are influenced by a variety of personal, professional, and social dynamics.

These results were congruent with **Borges et al., (2021)**, who studied workaholism and family interaction among nurses showed that age, gender and workplace were predicting factors of workaholism. **Ariapooran, (2019)**, indicated that workaholism rate was higher among the married nurses than the single ones. According to **Kang, (2020)**, in his study in Korea about workaholism prevalence and socio-demographic differences detected that gender and age were predicting factors of workaholism. But, these results dissimilar with **Ruiz-Garcia et al., (2022)**, in their study about workaholism and work-family interaction among emergency and critical care nurses demonstrated that gender, age, marital status and type of contract were not significant.

The correlation between nursing managers' knowledge, perception and practice 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. Additionally, there was highly statistical significant positive correlation between ethical leadership knowledge and practice and between ethical leadership perception and practice at all program phases (Table 3). 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 were in the same line with **Saad et al., (2021)**, who concluded that there was a highly positive statistical significant correlation between head nurses' ethical leadership knowledge and skills at post and follow up program phases. On the same track **Mohamed et al., (2021)**, in their study about enhance 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 performance scores.

Additionally, the results of the present study revealed that there was highly statistical significant negative correlation between nursing managers' ethical leadership knowledge, perception and practice with their levels of workaholism at post and follow up program phases (Table 2). 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, (2017), 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, (2020), in their study about uncovering a relationship between leadership behaviour and employees' workaholism revealed that ethical leaders' supportive behaviour is inversely related to being a workaholic. In the same line with the current study **Mahran et al., (2022-a)**, revealed 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, (2021)**, indicated that ethical leadership has an insignificant effect on workaholism.

5. Conclusion:

Based on the findings of the present study it can be concluded that, more than one quarter of nursing managers had satisfactory level of knowledge at pre-program phase which increased to most of them at post program phase and the majority of them at follow up phase. Also, one quarter of nursing managers had high ethical leadership perception level at pre-program phase which increased to most of them at post program phase and less than two thirds of them at follow up phase.

Moreover, nearly two fifth of nursing

managers had adequate practices at pre-program phase which increased to the majority of them at post-program phase and nearly three quarters at follow up phase. While, more than half of nursing managers had high levels of workaholism at pre-program phase which decreased to less than one tenth of them at post program phase and then increased to more than one quarter of them at follow up phase.

There were a highly statistical significant difference between nursing managers' knowledge, perception and practice of ethical leadership and their levels of workaholism between pre, post and follow up phases ($p < 0.01$). Furthermore, there were positive statistical significant correlation between ethical leadership knowledge, perception and practices at all program phases. While, there were negative statistical significant correlation between ethical leadership knowledge, perception and practices with nursing managers levels of workaholism at all program phases.

6. Recommendations:

Based on the findings of the present study, the following recommendations were suggested:

- 1) Conducting training programs and workshops for all administrative and managerial levels on the concept of ethical leadership.
- 2) Conducting educational programs to raise awareness of the concept and risks of workaholism and how to prevent it.
- 3) Conducting rehabilitation programs for managers who suffer from extreme workaholism.
- 4) Conducting training programs on improving work life balance and how to overcome workaholism.

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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
Number of nursing managers in Suez Canal University hospitals	Educational Hospital	74	74
	Specialized Surgery Hospital	20	20
	Oncology Hospital	6	6
Educational qualifications	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): Distribution nursing managers' total knowledge regarding ethical Leadership (no. =100).

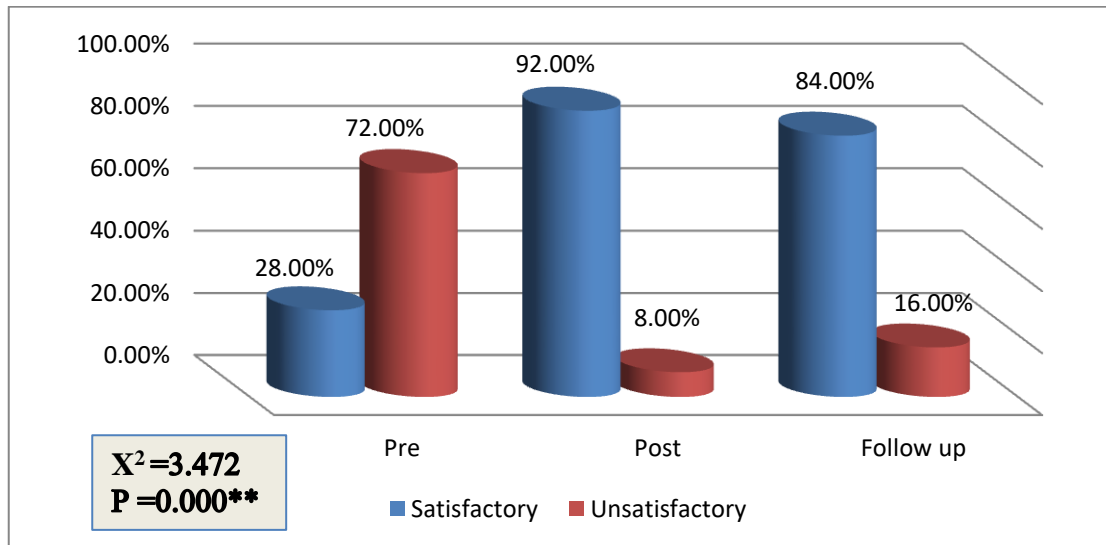


Figure (2): Distribution nursing managers' total ethical leadership perception (no. =100)

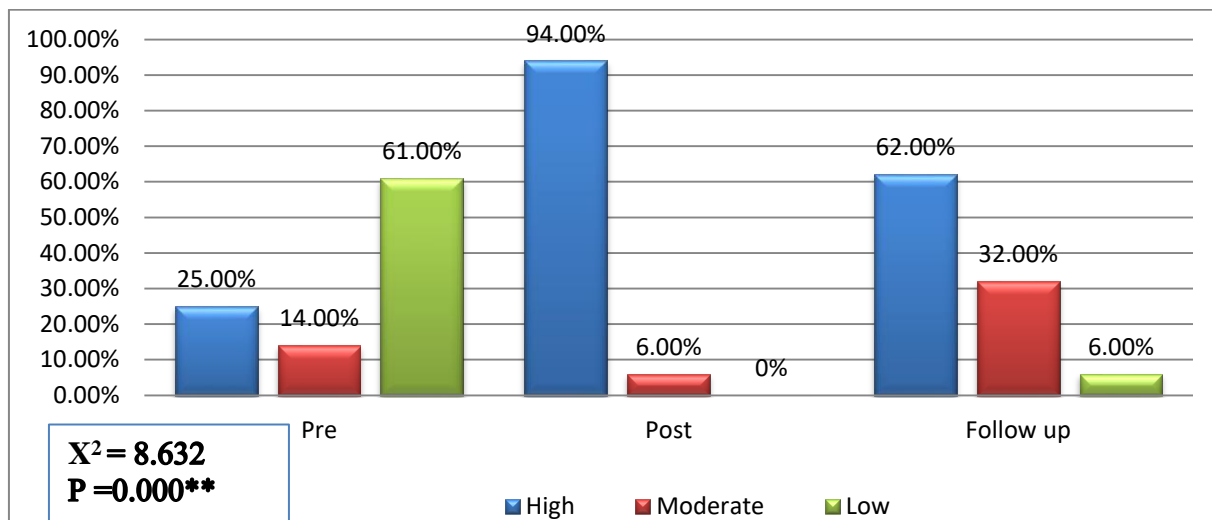


Figure (3): Distribution of nursing managers' total levels of ethical leadership practices (no. =100)

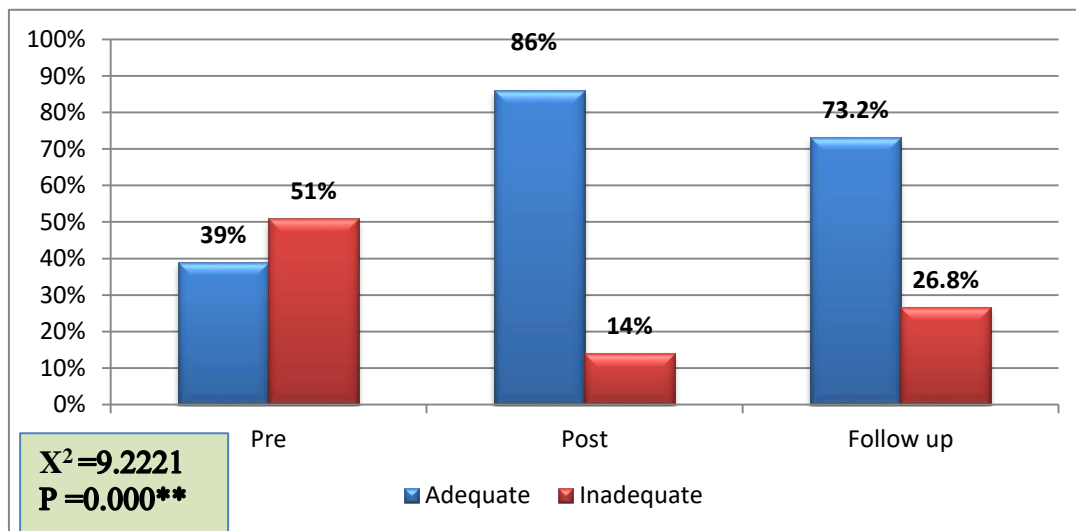


Figure (4): Distribution of nursing managers' total levels of workaholism (no. =100)

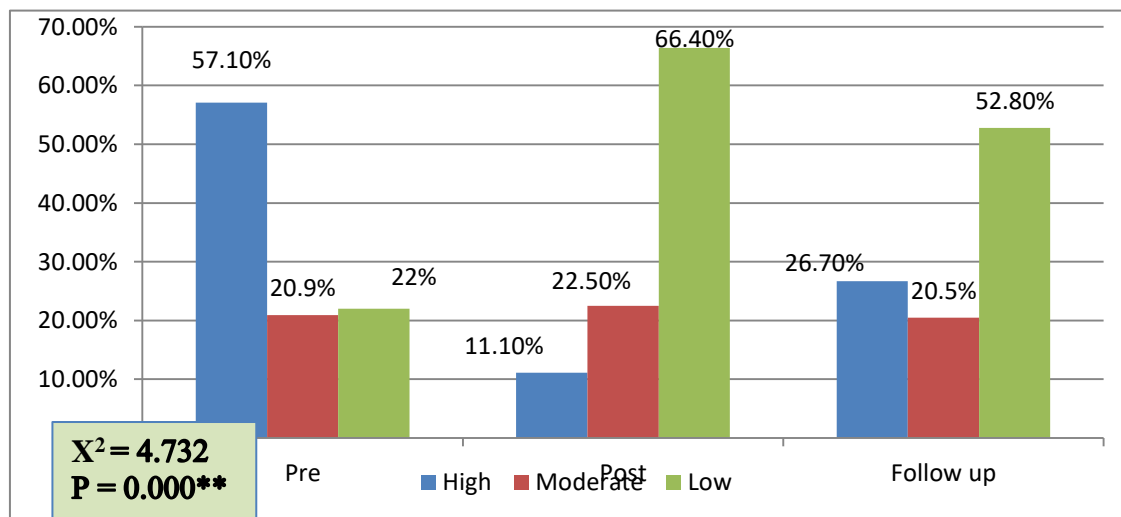


Table (2): Liner regression analysis for workaholism predicting factor regarding Scio-demographic characteristics (no. =100).

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	69.711	12.020		5.799	0.000
Age	7.622	2.292	.497	3.325	0.001**
Gender	6.700	2.959	.223	2.264	0.026*
Marital status	-2.185-	2.139	-.114-	-1.022-	0.010*
Work department	1.990	1.448	0.155	1.374	0.003**
Qualifications	-.054-	8.162	-.001-	-.007-	0.995
Experience	-6.098-	2.324	-.349-	-2.624-	0.210
a. Dependent Variable: Workaholism					

* Relation is significant at < 0.05

** Relation is highly significant at < 0.01

Table (3): 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 perception						0.86	0.000**	-0.71	0.034*
Ethical leadership practice								-0.23	0.001**
Workaholism									
Ethical leadership knowledge	Post			0.637	.024*	0.835	0.001**	-0.616	0.001**
Ethical leadership perception						0.384	0.001**	-0.818	0.002**
Ethical leadership practice								-0.385	0.003**
Workaholism									
Ethical leadership knowledge	Follow up			0.553	0.013*	0.985	0.005*	-0.491	0.0001**
Ethical leadership perception						0.704	0.001**	-0.873	0.0001**
Ethical leadership practice								-0.682	0.0001**
Workaholism									

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