Relationship between ethical leadership and workaholism among nursing supervisors as perceived by staff nurses

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Background
Workaholism develops as a result of working long hours to reach mutually agreed-upon goals by ethical leaders who serve as role models and encourage ethical behavior.
Aim
To examine the relationship between nursing supervisors' ethical leadership and their workaholism as perceived by staff nurses.
Design
A descriptive correlational research design was adopted to achieve the study.
Setting
The study was conducted at Sohag University Hospital.
Patients
As convenience samples, 25 nursing supervisors and 240 staff nurses were recruited.
Tools
Three tools were used for data collection as follows: demographic data forms and ethical leadership and workaholism analysis questionnaires.
Results
Overall, 53.3% of staff nurses reported leaders with low levels of ethical leadership, whereas 46.7% of them were led by ethical leaders. Moreover, 73.3% of leaders had low levels of workaholism, whereas 26.7% of leaders had high levels of workaholism.
Conclusion
There were statistically significant differences and positive relations between ethical leadership and workaholism among the recruited participants.
Recommendations
Training programs should be conducted to teach nursing supervisors about ethical leadership, as well as the dangers of workaholism and how to prevent them.

Keywords:
ethical leadership, nursing supervisors, staff nurses, workaholism

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Introduction

Leadership is defined as a multi-angled process of inspiring the team toward a common action, determining a goal, providing support to achieve mutually worked-out goals, and providing motivation. Leadership in nursing would mean different aspects in the day-to-day life of a nurse. It may refer to nurses' communication skills and coordination skills with a health care team under the direction of their leader or it can also apply to their dealings with patients and relatives. The successful operation of the shift, staff morale, and managing difficult or challenging situations depend largely on the skills of the leaders (Cherian and Karkada, 2017).

Ethics is considered as an indispensable factor in creating the identity of a successful leader. Ethical behavior is mainly required for the success of any organization as ethical leaders create values and ethical awareness, define responsibility and authority, adapt to democratic and participative administration, be honest and reliable, and in short, be just in all attitudes and behaviors. Ethical leadership is a leadership style that highlights the ethical dimensions of leadership in management. It refers to the leader's values, ethical traits, and ethical behavior in organizational settings and the way they relate to employees, organizations, and society. Moreover, it is positively linked with favorable employee's outcomes, including different attitudes and behaviors, and is found effective in decreasing undesirable outcomes (Alvinius, 2017).

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There are three fundamental building blocks of ethical leadership: treating an employee ethically, being an ethical example, and actively managing morality. The first two of these consider the moral personal component of ethical leadership that leaders should have to be desirable. The third covers the moral manager component, which encourages normative behaviors and discourages immoral conduct by using transactional efforts, such as enforcing moral behavior. Without relying on good character and the right values, it would be very difficult to analyze ethical leadership (Walumbwa *et al.*, 2017).

Ethical leadership is associated with positive effects on employees, by enhancing positive attitudes and behaviors at work while diminishing the negative ones in organizations. Positive attitudes and behaviors at work reflect employees' good disposition to do the job, which translates into better performance, healthy work climate, and employee well-being. One of the most important positive attitudes for organizations is job satisfaction, which reflects how satisfied an employee is based on his/her fundamental evaluation of work experiences (Bachmann, 2017).

Ethical managers are characterized by the fact that part of the responsibilities and powers are given to the employees (Bennegren *et al.*, 2019). Such managers allow them to control certain work processes and independently solve the problems and procedural issues. Owing to such managers' behavior, an appropriate relationship with the work of employees is formed. Employees feel that work processes depend on themselves. They can choose appropriate ways and conditions of meeting the targets. So, the risk of workaholism decreases. As it was found that a perceived ethical leadership style has a greater effect on workaholism than any other styles of leadership, some authors state that an ethical leadership style can create favorable conditions for the development of employees' workaholism (Morkevičiūtė and Endriulaitienė, 2017). It employees workaholism.

There are seven dimensions of ethical leadership: people-oriented dimension, which signifies leaders' authentic concern for their followers and includes care, respect, and support toward them and leaders' efforts to reinforce morality through reward and punishment. The fairness dimension presents ethical leaders as honorable, transparent, and fair. Ethical leaders also share power with their followers by listening to their concerns and allowing them a desirable level of autonomy to perform their tasks. They show a sense of concern for sustainability, that is, they recognize the wider influence of their actions, which extends beyond the work unit and organization and which may affect the welfare of society as a whole. The integrity dimension is fundamental for the leaders, referring to a practice of consistency in words and actions and following commonly accepted ethical standards. Ethical leaders guide their followers ethically by helping and supporting them to convert documentary organizational guidelines to practical work settings. Last, ethical leaders clarify roles by providing clear directives, goals, and expectations (Karim and Nadeem, 2019).

Workaholism was established and initially defined in 1971 and described as 'the uncontrollable need to work' (Aziz and Moyer, 2018). Recent literature has categorized workaholism (negative) and work engagement (positive) as the dichotomous nature of the employee's work involvement. To provide differentiation between workaholism and work engagement, workaholics have been defined as 'working harder than their job prescriptions require and they put much more effort into their jobs than is expected by the people with whom or for whom they work, and in doing so, they neglect their life outside their job (Atroszko *et al.*, 2020).

Workaholics exhibit different forms of commitment to their work. They are physically committed through excessive working hours and willing to accept additional responsibilities, even without reward or recognition from their employer. When they are not working, they feel a strong emotional drive to continue working, leading to difficulties with disengaging from the workplace. The term workaholism was originally derived from the analogy of 'alcoholism,' which means that workaholics at the beginning of their presentation show similarities to material addiction behavior. Therefore, in the early days of workaholic research, scholars considered workaholics to be an addictive behavior, even treating workaholics as a pathology (Taylor *et al.*, 2019).

Ethical leaders are imitated by others; therefore, they behave as role models and foster ethical conduct within the organization to achieve mutually worked-out goals; therefore, they put high-performance standards, which make them overly engaged to their work, and they work excessive hours and for long times, which make them unable to disengage from their work, increasing the risk of workaholism. The aim of the current study was to examine the relationship between nursing supervisors' ethical leadership and their workaholism as perceived by staff.

Significance of the study

Ethical leadership plays an important role in fulfilling health care ethics; by creating an ethical climate, ethical leadership leads to positive and effective outcomes – for the patients as well as for the nurses and the leaders – and professional progress and development of the nursing profession (Sharifabad *et al.*, 2018). In 2016, a study was conducted in Guilan, Iran, which confirmed that ethical leadership has an influence on the staff performance (Kelidbari *et al.*, 2016). In Egypt, a descriptive correlational research study was conducted at a hospital of Alexandria University Hospital, and the result of the study revealed a positive significant correlation between ethical leadership behavior and organizational identification (Awad and Khalifa, 2018).

In the context of workaholism and burnout, a study comprising 302 employees working in different Lithuanian organizations revealed that workaholism and personal and work-related burnout among employees who consider their leaders to be more ethical are lower than of those who consider their leaders to be less ethical (Morkevičiūtė and Endriulaitienė, 2017).

In this study, the researchers observed that nursing supervisors who work for long hours have high performance standards but avoid delegating any tasks to their subordinates; they perform their tasks flawlessly and are easily irritated by others, and also, they respect and support their nurses and treat them fairly. As a result, further research into the existing study variables may provide some useful insights into the relationship between ethical leadership and workaholism among nursing supervisors at Sohag University Hospital, allowing the proposal of new dynamic recommendations based on sound evidence based Knowledge for future nursing administration research, toward leading and managing nursing work forces, and nursing education to improve quality of care.

Aim

The aim was to examine the relationship between nursing supervisors' ethical leadership and their workaholism as perceived by staff nurses.

Research question

Is there a relationship between nursing supervisors' ethical leadership behavior and workaholism as perceived by staff nurses at Sohag University Hospital?

Patients and methods

Research design

A descriptive correlational research design was used. By using this design, many interrelationships in these phenomena can be identified more easily. The research focuses on variables that have occurred in the past or are currently occurring as reported by the study participants. A descriptive correlational method refers to a type of study in which information is collected without making any changes to the study participants, seeking to describe the current status of an identified variable. The purpose of a descriptive correlational design is to describe variables and examine relationships among these variables and to examine if changes in one or more variables are related to changes in another variable(s). The use of this design facilitates the identification of many interrelationships in these phenomena. The study examines variables that have already occurred or are currently occurring. These variables are clearly identified and defined (Akinlua and Haan, 2019).

Setting

The study was conducted at medical units (general medical, tropical, coronary care, dermatology, intermediate care, neurological, cardiac catheter, and chest and dialysis units), surgical units (general surgical, vascular surgical, plastic surgical, and urological surgical units), and the general ICU at Sohag University Hospital.

Sample

Convenience samples including 25 nursing supervisors and 240 staff nurses from the selected units were recruited.

Tools

To achieve the aim of the current study, three tools were used to collect data relevant to the study variables as follows:

Tool I – part A: demographic and work-related data of nursing supervisors, such as Hana age, sex, nursing qualifications, marital status, and years of experience.

Part B: demographic and work-related data of staff nurses, such as age, sex, nursing qualifications, marital status, and years of experience.

Tool II – ethical leadership at work questionnaire: it was developed by Kalshoven *et al.* (2011). It includes 38 statements classified into seven dimensions used to measure ethical leadership behaviors distributed as

follows: people orientation (seven items), fairness (six items), power sharing (six items), concern for sustainability (three items), ethical guidance (seven items), role clarification (five items), and integrity (four items). The instrument asked nurses how much they agree or disagree with each item on a five-point Likert scale: 1–strongly disagree, 2–disagree, 3–uncertain, 4–agree, and 5–strongly agree. In the scoring system, participants' responses were added up and categorized as follows: from 38 to 114 indicate low ethical leadership behavior and from 115 to 190 indicate high ethical leadership behavior.

Tool III – workaholism analysis questionnaire: the adapted questionnaire was developed by Aziz *et al.* (2013). It includes 30 statements classified into five dimensions: work-life conflict (12 items), work perfectionism (five items), work addiction (six items), unpleasantness (four items), and withdrawal symptoms (three items). The instrument asked nurses how much they agree or disagree with each item on a five-point Likert scale: 1–strongly disagree, 2–disagree, 3–uncertain, 4–agree, and 5–strongly agree. The scores of participants' responses were added up and categorized as follows: 30–90 indicate low levels of workaholism and from 91 to 150 indicate high levels of workaholism.

Validity and reliability

The validity of study tools was established by seven experts in nursing administration field to assess the comprehension of statements. Alpha Cronbach's coefficient test result for ethical leadership questionnaire was 0.76 and for workaholism analysis questionnaire was 0.88.

Pilot study

A pilot study was conducted on 10% of the total staff nurses (24), who were included in the study sample as well, 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. Based on the pilot study analysis, minor modifications were done.

Ethical consideration

An approval to conduct the proposed study was obtained from the Research and Ethics Committees at Faculty of Nursing, Cairo University (2020–41). Moreover, an official permission was obtained from hospital administrators to conduct the study in their hospital. Each nurse was informed about the nature and purpose of the study. The researchers emphasized that participations in the study was completely voluntary and participants could withdraw from the study at any time. Then, those who chose to participate in the study were asked to sign a consent form. Additionally, confidentiality and anonymity were assured through coding of the data.

Data collection procedures

After ensuring the clarity of the tools, the actual data collection was done by the researcher through interview with staff nurses on a daily basis either individually or in small groups during morning, evening, and night shifts. Each participant took 20–30 min to fill the self-reporting questionnaires. Data were collected from medical units, surgical units, and general ICU. Data were collected from February 2021 to July 2021.

Statistical analysis

The obtained data were tabulated, computed, and analyzed using the Statistical Package for the Social Sciences (SPSS, SPSS Inc, Chicago, Illinois, USA), version 24. Descriptive statistics were presented in the form of frequency distribution, percentage, mean, and SDs. The significance of the relation was assessed using Pearson correlation coefficient. *P* value more than 0.05 indicated nonsignificant result, whereas *P* value less than 0.05 was significant and *P* value less than 0.01 was highly significant.

Results

Table 1 reveals that the highest percentage of nursing supervisors (80.0%) were males, ~64.0% were married, 56% were aged 29 years, 68.0% had less than 5 years of experience, 52.0% had 5 to 10 years of experience in the current work place, 48.0% worked in the medical unit, 60% had no children, and 100% had a bachelor's degree in nursing.

Table 2 show that the highest percentage of staff nurses (61.7%) were aged less than 25 years, 65.0% were females, 55.0% were single, 68.3% had no children, 53.3% held a technical diploma degree in nursing, 53.3% had less than 5 years of experience in nursing, 65% had less than 5 years of experience in the current work place, and 43.75% of them worked in the medical department.

Table 3 shows that when it comes to low ethical leadership behavior, the people orientation dimension had the highest percentage (66.7%) and the fairness dimension had the lowest percentage (36.7%). However, when it comes to high ethical leadership behavior, fairness dimension (63.3%) had

Table 1 Demographic and work-related data for nursing supervisors (*N*=25)

Demographic data	Variables	Nursing supervisors (*N*=25) [*n* (%)]
Age	28	8 (32)
	29	14 (56)
	≥30	3 (12)
Mean±SD	28.4±1.36	
Sex	Male	20 (80.0)
	Female	5 (20.0)
Marital status	Married	16 (64.0)
	Single	9 (36.0)
Number of children	0	15 (60.0)
	1	6 (24.0)
	2	3 (12.0)
	3	1 (4.0)
	4	0
Mean±SD	0.60±0.85	
Qualifications	Diploma degree in nursing	0
	Technical diploma degree in nursing	0
	Bachelor's degree in nursing	25 (100.0)
Mean±SD	3.0±0.00	
Experience	<5 years	6 (24.0)
	5 years to <10 years	17 (68.0)
	10 years to <15 years	2 (8.0)
Mean±SD	1.84±0.54	
Experience in the current workplace	<5 years	13 (52.0)
	5 years <10 years	10 (40.0)
	10 years <15 years	2 (8.0)
Mean±SD	1.56±0.64	
Working place	Intensive care	4 (16.0)
	Medical	12 (48.0)
	Surgical	9 (36.0)

Table 2 Demographic and work-related data of staff nurses (*N*=240)

Demographic data variables	Staff nurses (*N*=240) [*n* (%)]
Age	
21–25	148 (61.7)
26–30	68 (28.3)
31–35	20 (8.3)
36–40	4 (1.7)
Mean±SD	25.5±3.59
Sex	
Male	84 (35.0)
Female	156 (65.0)
Marital status	
Married	108 (45.0)
Single	132 (55.0)
Number of children	
0	164 (68.3)
1	12 (5.0)
2	32 (13.3)
3	28 (11.7)
4	4 (1.7)
Mean±SD	0.73±1.17
Qualifications	
Diploma degree in nursing	72 (30.0)
Technical diploma degree in nursing	128 (53.3)
Bachelor degree in nursing	40 (16.7)
Mean±SD	1.87±0.67
Experience	
<5 years	128 (53.3)
5 years <10 years	96 (40.0)
10 years <15 years	16 (6.7)
Mean±SD	1.53±0.62
Experience in current workplace	
<5 years	156 (65.0)
5 years <10 years	72 (30.0)
10 years <15 years	12 (5.0)
Mean±SD	1.40±0.58
Working place	
Intensive care	45 (18.75)
Medical	105 (43.75)
Surgical	90 (37.5)

the highest percentage and power-sharing dimension had the lowest percentage (35%).

Table 4 reveals that for high levels of workaholism, the highest percentage of participants reported unpleasantness (43.3%) and the lowest percentage reported withdrawal symptoms (28.3%). However, for low levels of workaholism, the highest percentage reported withdrawal symptoms (71.7%) and the lowest percentage reported unpleasantness (56.7%).

Table 5 show that ~53.3% of staff nurses were led by leaders with low levels of ethical leadership, whereas 46.7% of nurses were led by ethical leaders. Moreover, 73.3% of leaders had low levels of workaholism, whereas 26.7% of leaders had high levels of workaholism.

Table 6 reveals that there were highly statistically significant differences between ethical leadership and sex, years of experience in nursing, experience in the current working place, and working place (P=0.001) and no statistically significant differences between ethical leadership and age, marital status, and number of children. At the same time, there were statistically significant differences between workaholism and sex, number of children, experience in the current working place, and working place (P=0.001) and no statistically significant differences between workaholism and age, marital status, and experience.

Table 7 shows that there was a positive relation and statistically significant differences between ethical leadership and workaholism (r=0.16, P=0.011).

Discussion

The concept of ethical leadership has received increasing attention from researchers, particularly those interested in the moral crises identified in several organizational contexts; ethical leaders care about ethical conduct and also incorporate it in the surrounding environment. Ethical leaders are true, honest, kind, and attentive people, who are able to make fair decisions based on a set of values that enable a good working environment for all of the parties involved. The perception that a leader is ethical produces an extensive effect, which goes far beyond simple perception, thus influencing the behavior of those who follow. Indeed, the ethical conduct of leaders plays an important role in the lives of their followers (Keck *et al.*, 2020).

Ethical leaders affect stakeholders inside and outside the organization; they control all of their behaviors and are imitated and observed by the employees of the organization, who display similar ethical attitudes. Ethical leaders give part of their responsibilities and powers to employees and allow subordinates to control independently certain work processes. In this way, they can choose suitable methods and conditions for achieving the objectives. So, it affects the risks of workaholism (Çetin, 2018). The aim of the study was to examine the relationship between nursing supervisors' ethical leadership and workaholism as perceived by staff nurses.

According to the current study, more than three-quarters of nursing supervisors were males, approximately two-thirds of them were married, most of them were between the ages of 26 and 30 years, more than two-thirds of them had less than 5 years of experience in the nursing profession, and approximately half of them had less than 10 years of experience in their current workplace. Less than half of them worked in a medical unit, two-thirds of them did not have children, and all of them had a bachelor's degree in nursing. Regarding the demographic data of staff nurses, the highest percentage of participants were females, were aged less than 25 years old, were single, and working in the medical unit. Moreover, more than two-thirds of them had no children, slightly more than half of them had less than 5 years of experience in

Table 3 Distribution of ethical leadership dimension levels as reported by staff nurses (*N*=240)

Ethical leadership dimensions	Ethical leadership levels [*n* (%)]	
	Low levels	High levels
1. People orientation	160 (66.7)	80 (33.3)
2. Fairness	88 (36.7)	152 (63.3)
3. Power sharing	156 (65.0)	84 (35.0)
4. Concern for sustainability	112 (46.7)	128 (53.3)
5. Ethical guidance	132 (55.0)	108 (45.0)
6. Role clarification	108 (45.0)	132 (55.0)
7. Integrity	124 (51.7)	116 (48.3)

Table 4 Distribution of levels of workaholism dimensions as reported by staff nurses (*N*=240)

Workaholism dimensions	Levels of workaholism [*n* (%)]	
	Low levels	High levels
1. Work-life conflict	160 (66.7)	80 (33.3)
2. Work perfectionism	148 (61.7)	92 (38.3)
3. Work addiction	164 (68.3)	76 (31.7)
4. Unpleasantness	136 (56.7)	104 (43.3)
5. Withdrawal symptoms	172 (71.7)	68 (28.3)

Table 5 Distribution of levels of ethical leadership and workaholism as perceived by staff nurses (*N*=240)

Variables	Low levels [*n* (%)]	High levels [*n* (%)]
Ethical leadership at work	128 (53.3)	112 (46.7)
Workaholism	176 (73.3)	64 (26.7)

Table 6 Relationship between nursing supervisors ethical leadership levels and workaholism with demographic and work-related data (*N*=240)

Variables	Ethical leadership		Workaholism	
	χ^2	*P* value	χ^2	*P* value
Age	5.77	0.056	1.40	0.496
Sex	30.34	0.001	6.85	0.009
Marital status	2.50	0.114	1.04	0.308
Number of children	4.95	0.176	18.76	0.001
Experience	33.85	0.001	1.86	0.395
Experience in current workplace	15.49	0.001	14.78	0.001
Working place	18.02	0.001	24.58	0.001

$^{*}P$ value is statistically significant at less than 0.05, and the $^{**}P$ value is highly statistically significant at less than 0.01.

Table 7 Relation between levels of ethical leadership and workaholism as perceived by staff nurses (*N*=240)

Ethical leadership at work	Workaholism dimensions (mean±SD)					
	Work-life conflict	Work perfectionism	Work addiction	Unpleasantness	Withdrawal symptoms	Total
Low	59.4±13.8	53.4±15.8	50.5±12.6	61.9±14.7	37.7±18.2	54.8±8.6
High	56±10.3	62.1±13.3	57.4±13.0	48±13.6	61.0±16.2	56.7±7.6
r	–0.10	0.46	0.27	–0.61	0.61	0.16
P value	0.106	0.001	0.001	0.001	0.001	0.011

**P* value is significant at less than 0.05. ***P* value is highly statistical significant differences at less than 0.01.

nursing, more than two-thirds of them had less than 5 years of experience in the current work place, and slightly more than half of them held a technical diploma degree in nursing. This could be because males are more interested in nursing colleges than nursing schools or institutions.

This result was supported by the study of Özsungur (2019), titled 'Study the impact of ethical leadership on service innovation behavior: the mediating role of psychological capital,' which reported that more than three-quarters of the participants were males and more than two-thirds of the patients were married. In the same line, the study by Wyat (2017), titled 'Ethical leadership: a study of traits and behaviors of leaders in higher education today,' showed most respondents were males. Moreover, the study by Haque and Yamoah (2021), titled 'The role of ethical leadership in managing occupational stress to promote innovative work behavior: a cross-cultural management perspective,' showed most respondents were males having a bachelor's degree.

Regarding participant's perception of ethical leadership levels in relation to low ethical leadership behavior, more than two-thirds of the participants reported people orientation dimension and more than one-third reported fairness dimension. This could be because an ethical leader who is overly concerned with upholding the rule of law may cause discomfort or controversy because ethical leaders utilize discipline and reward to hold subordinates accountable for their actions. This result was supported by the study by Basoro and Nidaw (2021), titled 'Ethical leadership practices and factors affecting it in south Addis Ababa district commercial bank of Ethiopia,' which reported that related to low levels of ethical leadership, people orientation is the most practical dimension. Moreover, this result goes in line with the study by Vikaraman *et al.* (2021), titled 'Ethical leadership practices and trust among public school leaders in Malaysia,' which found that related to low levels of ethical leadership, the highest mean score was for fairness dimension.

Related to high ethical leadership behavior, more than two-thirds of participants reported fairness dimension and more than one-third of participants reported power-sharing dimension. This could be because ethical leaders place a high importance on fairness, justice, and elimination of bias. They also value sharing of power, which leads to better outcomes, loyalty, and respect, which leads to positive relationships with little friction, which helps them achieve organizational goals and operate in a way that is always advantageous to the greater good. This result was incompatible with Vikaraman *et al.* (2021), who found that the level of ethical leadership practiced the highest mean score was for ethical guidance followed by role clarification, but fairness had the least mean score. Moreover, this result is incompatible with Basoro and Nidaw (2021), who reported that related to high levels of ethical leadership, role clarification and ethical guidance are the most practical dimensions.

Regarding participant's perception for levels of workaholism in relation to low levels of workaholism, more than two-thirds of participants reported work addiction dimension and more than half reported unpleasantness dimension. This could be because workaholics have a narcissistic control need to be acknowledged and appreciated as well as to gain praise from their supervisor and fellow workers. This result was supported by Moyer *et al.* (2017), who found that across all workaholism dimensions, it found that related to low levels of workaholism, unpleasantness and work addiction dimensions had the lowest mean score among the other workaholic dimensions. Moreover, these results are in line with the study by Taheri *et al.* (2019), titled 'Workaholism and workplace incivility: the role of work–family enrichment' which found that across all workaholism dimensions related to high levels of workaholism, the highest mean score was for work addiction and unpleasantness dimensions.

Regarding factors related to high levels of workaholism, less than half of participants reported unpleasantness dimension and slightly more than one-

third of participants reported work addiction dimension. This result was incompatible with Andreassen *et al.* (2018), who found that across all workaholism dimensions, withdrawal symptom dimension had the highest mean score related to high levels of workaholism followed by the perfectionism dimension. Moreover, this result was incompatible with Taheri *et al.* (2019), who found that across all workaholism dimensions related to high levels of workaholism, the highest mean score was for work perfectionism and withdrawal symptom dimensions.

The study showed there were highly statistically significant differences between participants' perception of ethical leadership and demographic data, including sex, years of experience in nursing, experience in the current working place, and working place. This result may be due to that males behave in competitive and accomplishment-oriented manner, whereas females behave in a developmental and socially oriented manner, and supervisors who have more experience easily adapt to work conditions. This result was incompatible with the study by García and Broc (2017), entitled 'Ethical leadership: a theoretical review and empirical research' which found that age, sex, marital status, level of education, and job position within the company had no significant relation with ethical leadership. Moreover, this result was incompatible with the study by Wibawa and Takahashi (2021), titled 'The effect of ethical leadership on work engagement and workaholism: examining self-efficacy as a moderator,' which found that sex, marital status, and workplace experience showed insignificant results.

However, there were no statistically significant differences between demographic data (age, marital status, and number of children) and participants' perception of ethical leadership. This could be because ethical leadership is more affected by communication skills, interpersonal relationships, and experience than by sex, marital status, or the number of children. This finding was backed up by the study by Garcia and Broc (2017), titled 'Ethical leadership: a theoretical review and empirical research,' which discovered that age, marital status, and other factors had no bearing on ethical leadership. This result was incompatible with Wibawa and Takahashi (2021), who found that age was significantly related.

For workaholism, there were statistically significant differences between participants' perception of workaholism and sex, number of children, experience in current working place, and working place. This result could be explained by the fact that males are more prone to workaholism than women as they have more control over their professions and have more experience adapting to various work environments. This result was supported by Kang (2020) who found statistically significant differences regarding sex. Moreover, these results go in line with Aldahadha (2019) who studied the level of workaholism and its relation to positive and negative perfectionism and found that there were statistically significant differences related to sex, professional experience, and working place.

There were no statistically significant differences between participants' perception of workaholism and age, marital status, and experience. This could be owing to the fact that workaholism is connected to emotional elements that are influenced more by sex than age. This result was supported by Kang (2020), who found that workaholic tendencies did not differ significantly according to marital status. However, it was incompatible with Kang (2021), as age was significantly related to workaholism. This result was incompatible with Aldahadha (2019) who found that there were statistically significant differences related to age, marital status, and experience.

The study results showed that there was a positive relation between ethical leadership and workaholism. This could be because ethical leaders serve as role models, setting high-performance standards for themselves, refusing to accept mistakes, and completing their responsibilities more flawlessly than others. This result was incompatible with Morkevičiūtė and Endriulaitienė (2017), who found that there was a negative significant relation between ethical leadership style and workaholism. This result was also incompatible with Wibawa and Takahashi (2021), who found that ethical leadership is not associated with workaholism.

Conclusion

According to the findings, more than half of the participants thought their nursing supervisors exhibited low levels of ethical leadership conduct, whereas fewer than half of them exhibited high levels of ethical leadership conduct. On the contrary, more than two-thirds of participants had low levels of workaholism, whereas slightly more than a quarter of them had high levels of workaholism. As a result, it was discovered that ethical leadership and workaholism had positive relations and statistically significant differences.

Recommendations for future study

(1) Training programs and workshops should be conducted for nursing supervisors to understand the notion of ethical leadership and how it is applied within the work place.
(2) Training sessions should be organized to raise knowledge of the concept of workaholism, as well as the risks it poses and how to avoid it.
(3) Recovery programs should be organized for nursing staff who are addicted to their jobs.

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Conflicts of interest

There are no conflicts of interest.

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