Head Nurses' Ethical Leadership and its Relation to Staff Nurses' Job Stress  
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Abstract

Background: Ethical leadership has special value and become the most important in handling the staff nurses 'job stress. Aim of the study: To assess head nurses' ethical leadership and its relation to staff nurses' job stress. Subjects and Method: A descriptive-correlational design was used in this study. The study was conducted at Tanta University Main Hospital. The study subject: including all (27) head nurses and 241 staff nurses selected randomly from total (640). Two tools were used; Ethical Leadership structured questionnaire and job stress scale. Results: nearly half (48.1%) of the head nurses had high perception level of overall ethical leadership while, about one third (35.8%) of staff nurses had high of overall head nurses’ ethical leadership, and more than half (55.2%) of them had low level of the overall job stress. Conclusion: There was a significant negative correlation between staff nurses’ total perception of head nurses’ ethical leadership and their total job stress. Recommendations: Provide training programs for all nursing staff levels about ethical leadership and improve their perception about ethical leadership as the strategy to reduce staff nurses’ job stress. Prim importance attending in-service education programs on ethical leadership as the request for pre promotion for nursing management position.

Key words: Ethical leadership, Head nurses, Staff nurses, Job stress.
Introduction
Head nurse ethical leaders help to make an ethical atmosphere, offer ethical direction and guarantee the job satisfaction of staff nurses by prioritizing moralities\(^\text{(1)}\). Ethical leadership behavior indorses ethical conduct by practicing as well as managing ethics and holding staff nurses accountable for it. Head nurse’ ethical leaders are neutral and straightforward and provide staff nurses with a safe practice environment to fall back on while experiencing high levels of stress at clinical settings\(^\text{(2,3)}\).

Ethical Leadership was defined as the prove of normatively suitable behavior through personal activities and interpersonal dealings, and the promotion of such conduct to the nurses through two-way communication, reinforcement and decision-making, extended this with various behavioral dimensions such as fairness, integrity, power sharing, ethical guidance, people orientation, role clarification, and concern for sustainability\(^\text{(1,4,5)}\).

Fairness is seen as a significant form of ethical leader behavior. Integrity behavior is described as head nurse’ leaders who keep promises and behave consistently, are trusted or believed because they work or behave as expected. They share power with staff nurses by participating in decision making and listen to their ideas and concerns\(^\text{(4,5,6)}\).

Ethical head nurses’ leaders are transparent and involve in open communication. They clarify roles, responsibilities, expectations, and performance goals, so that staff nurses know what is expected from them and understand when their performance is up to par\(^\text{(7)}\). The people orientation behaviors of ethical head nurses’ leaders are caring genuinely, respecting, and supporting staff nurses and where possible ensuring their needs are met\(^\text{(8)}\).

Organizations and top management set rules, standards and codes of conduct, which provide guidelines for ethical behavior so, ethical head nurse leaders are able to raise staff nurses’ awareness of such guidelines. Finally, sustainability entails ethical head nurse leaders focusing on the development of staff nurses in the nursing practice environment, which extends beyond the work unit and organization and which may affect the welfare of society\(^\text{(2,5,7)}\). Ethical head nurse leaders hold a powerful position in decreasing staff nurses’ job stress especially in high complex nursing practice environment\(^\text{(1)}\).

Job stress is one of the foremost causes for mental and physical difficulties among staff nurses and lower their performance levels. It is a harmful physical and emotional response that occur when staff nurses are challenged with job strains and pressures that are out of relation to their competences, and making it hard to manage with. These pressures are organizational decisions, workload, conflict, inadequate preparation, uncertainty patient and treatment and dealing with death and dying\(^\text{(9,10,11)}\).

Death and dying that comprise seeing a patient suffer; conflict with physicians, which includes making a decision regarding a patient when the physician is unobtainable; inadequate emotional preparation, such as feeling inadequately prepared to manage the emotional needs of the patient; problem relating to peers, which includes lack of an opportunity to express to other team
members on the unit the undesirable moods toward patients; problem relating to supervisors that includes being held answerable for tasks over which having no control; workload, such as not enough time to complete all of tasks; uncertainty about treatment, which includes being in charge with insufficient experience; patients and their families, as having to deal with abuse from patients' families; and finally, discrimination, such as being sexually harassed\(^{(12-14)}\).

**Significance of the study**
Job stress may affect hospitals through staff nurses' burnout, poor performance, or absenteeism and turnover, which in turn may affect upon the quality of patient care. Nurses steadily document higher stress levels compared to other health care members\(^{(15)}\). Also, it has a high cost for nurses in terms of physical problems, wellbeing and job dissatisfaction. So, head nurses’ ethical leadership behaviors play a substantial role in generating positive nursing practice environment that increase nurses' job satisfaction, and lower their job stress\(^{(16)}\). When head nurses' ethical leaders behave honestly, transparent, answerable, trustworthiness and caring for staff nurses, they tend to have a higher level of job satisfaction, but when they not flexible in his choices and too much control with nurses, they generate physiological symptoms of stress, and thus negative effects of job stress\(^{(17)}\).

**Aim of the study**
To assess head nurses' ethical leadership and its relation to staff nurses' job stress.

**Research Question:**
What are levels of head nurses' ethical leadership and staff nurses' job stress?

What is the relationship between head nurses' ethical leadership and staff nurse job stress?

**Materials and method**

**Research design:**
A descriptive -correlational design was used to carry out this study.

**Setting:**
This study was conducted at Tanta University main Hospital, Gharbia Governorate. This Hospital affiliated to Ministry of High education and research with bed capacity 625 beds. It includes: Medical, Obstetric, Pediatric, Burn, Neurological and Mental, Tropical, Dermatology, Oncology, Physiotherapy and Hemodialysis unit; and Surgery, Pediatric surgery, Operation unit.

**Subjects:**
The subjects of study divided into two groups: 1- all (N=27) head nurses and, 2- a simple random sampling from all staff nurses (N=640) working in the previous mentioned settings. The total sample (241), with confidence level (95%), and margin of errors (5%)
Tools of data collection
Two tools used for data collection.

Tool I: Head Nurses' Ethical Leadership structured questionnaire. It was developed by Mitonga-Monga et al.(2019)(7) and was modified by the researcher to assess head nurse’s ethical leadership behaviors as perceived by head nurses and nurses. It included two parts:

Part I: personal characteristics of study subjects such as department name, age, marital status, qualification, and years of experience. As well as, attending training program.

Part II: Head Nurses' Ethical Leadership structured questionnaire. It consisted of 38 items covered seven dimensions as follows: Fairness (5 items), power sharing (5 items), role clarification (4 items), People orientation (6 items), Ethical guidance (5 items), Concern for sustainability (3 items), integrity (7 items).

Scoring system
Subjects' responses were measured on a five-point Likert scale as following: strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1). The overall score level ranging from 38 to 190. The total scores represented varying levels according to cut off point as follow: High level of ethical leadership behaviors ≥ 75%, moderate level of ethical leadership behaviors 60-75%, low level of ethical leadership behaviors < 60%.

Tool II: Staff Nurses' Job Stress Scale.
It was developed by investigator guided by French et al.(2000)(18); Morsi(2018)(20) to assess job-related stress among staff nurses. It consisted of 28 items divided into 6 main categories: organizational decisions 6 items, workload 5 items, conflict 6 items, inadequate preparation 5 items, uncertainty patient and treatment 8 items, dealing with death and dying 4 items.

Scoring system:
Staff nurses' responses were measured on five-point Likert scale that ranged from never (1), rarely (2), sometimes (3), often (4), always (5). The total scores represent varying levels as follow: High level of job stress more than ≥ 75%, moderate level of job stress 60-75% and low level of job stress < 60%.

Method
The study was implemented according to the following steps:

Administrative process:
Official letter from the dean of the faculty of nursing, Tanta University was directed to administrator of Tanta University Hospital to inform them about the study aim and obtain permission to conduct this study in the selected setting.

Ethical consideration:
Ethical approval was obtained from the research and ethical committee of the Faculty of Nursing, Tanta University. Official permission was obtained to collect the data from the selected setting to facilitate data collection process. A written informed consent was taken from Head nurses and staff nurses to participate in the study after informed them about the aim of study and privacy of information obtained, nature of the study, their right to withdraw and the confidentiality of their name. Confidentiality
and privacy were maintained regarding data collection and anonymity was assured during data collection by using code number instead of names.

The research tools were translated to Arabic language and amended by a panel of five experts of nursing administration specialists who reviewed the content of the tools for clarity, relevance, comprehensiveness, comprehension, application, and simplicity of use. Their opinions and suggestion were taken into consideration and modifications of tools were done accordingly. The five experts from nursing services administration in faculty of nursing at Tanta University. The expert’s response were reported in four points scale ranging from (1 – 4) where 1 not relevant, 2 little relevant, 3 relevant, 4 strongly. The face validity value of tool I: was 80.0% and tool II: was 80.4%.

**Pilot of the study:**
A pilot study was carried out on 10% of the selected subjects (3 head nurses and 26 staff nurses) who was convenient at the time of data collection and excluded from sample size. In order to ensure the clarity of questions, applicability of the tools, the time needed to complete the sheet. Also, to identify obstacles and problems that might be encountered during data collection.

**Tools reliability:**
The researcher used tool’s reliability to assess the internal consistency of the tools by administering them to the same participants under identical conditions. Reliability of the tool was ascertained by measuring the internal consistency of its items using Cronbach Coefficient Alpha Test where \( r = 0.99 \) and 0.93.

**Data collection phase:**
The data was collected from head nurses and staff nurses. The researcher met the respondents in small group consisted of one to four subject study during their work shifts morning, afternoon, to distribute the questionnaires. The subjects recorded the answer in the presence of the researcher to ascertain all questions were answered.

The time needed to complete the questionnaires items from the subjects were between 20-30 minutes.

Data was collected over a period of 6 months (from May to October 2022)

**Statistical Analysis:**
After data were collected, they were coded and transferred into specially designed formats so as to be suitable for computer feeding. The Statistical Package for Social Sciences (SPSS) was utilized for both data presentation and statistical analysis of the results. Descriptive measures included: number, percentage, minimum, maximum, arithmetic mean and standard deviation (SD). Significance of the obtained results was judged at the 5% level.

**Results**
**Table (1):** Displays distribution of the head nurses and staff nurses according to their characteristics. It was observed that 37% of head nurses aged less than 30 years, followed by 33.3% of them aged more than 35 years with mean age 32.19 ± 4.46. Regarding marital status, the majority (92.6%) of head nurses were married and they had bachelor degree. In relation to years of experience (35.3%) of head nurses had 10-<15 years of experience with mean years of experience 10.67 ± 4.62. More than forty
(44.4%) of head nurses attend training courses as a general, while more than fifty (55.6%) of them not attend any training courses.

**Regarding, staff nurses.** It was observed that about three quarters (69.7%) of staff nurses are married and less than thirty (30.3%) aren’t married, (47.7%) of staff nurses aged less than 30 years followed by (36.9%) aged 30-<35 years with mean ± SD (28.76 ± 4.33). In relation to level of education, it is noted that less than half (48.5%) had bachelor degree while more than half (51.5%) of them had diploma degree.

Regarding years of experience (35.3%) of staff nurses had 5-<10 years of experience with Mean ± SD (7.52 ± 4.80) followed by (30.7%) of them had less than 5 years of experience. The majority (90.9%) of staff nurses did not attend training course and the rest (9.1) attended training courses.

**Figure (1):** Shows head nurses’ department. More than one thirds (37%) of the head nurses work at the intensive care units while the minority (3.7 %) of them work at the gastro intestinal and the pediatrics units.

**Figure (2):** Shows distribution of staff nurses according to department. About one quarter (24.6%) of staff nurses worked in nephrology department followed by 18.5%, 10.30.% at neonatal intensive care unit and medical. While minority (1.7%) at GIT.

**Figure (3):** Demonstrates head nurses’ overall level of ethical leadership. Nearly half (48.1%) of the head nurses had high perception level of overall ethical leadership while, there is about 37% of them had low perception level.

**Figure (4):** Shows overall level of staff nurses’ perception of ethical leadership. 35.8% of the staff nurses had high level of perception regarding overall ethical leadership. Also, more than one third (32.8%, 31.5%) had moderate and low perception level of the overall ethical leadership.

**Figure (5):** Shows that more than half (55.2%) of staff nurses had low level of the overall job stress, while 39.2% and 5.60% of staff nurses had high and moderate level of the overall job stress.

**Table (2):** shows correlation between head nurses’ ethical leadership and staff nurses’ job stress. There is no significant correlation between head nurses’ ethical leadership and staff nurses’ job stress at p ≤ 0.05

**Table (3):** Correlation between staff nurses’ perception of head nurses ‘ethical leadership and their job stress. There was a significant negative correlation between staff nurses’ total perception of head nurses’ ethical leadership and their job stress at p ≤ 0.05.
Table (1): distribution of the head nurses and staff nurses according to their characteristics

<table>
<thead>
<tr>
<th>Subject characteristics</th>
<th>Head nurses (n =27)</th>
<th>Staff nurses (n =241)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>10</td>
<td>37.0</td>
</tr>
<tr>
<td>30-&lt;35</td>
<td>8</td>
<td>29.6</td>
</tr>
<tr>
<td>≥35</td>
<td>9</td>
<td>33.3</td>
</tr>
<tr>
<td>Mean ± SD.</td>
<td>32.19 ± 4.46</td>
<td>28.76 ± 4.33</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td>Married</td>
<td>25</td>
<td>92.6</td>
</tr>
<tr>
<td><strong>Level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>25</td>
<td>92.6</td>
</tr>
<tr>
<td>Master degree</td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td>Diplom</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Years of experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5</td>
<td>4</td>
<td>14.8</td>
</tr>
<tr>
<td>5-&lt;10</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>10-&lt;15</td>
<td>9</td>
<td>33.3</td>
</tr>
<tr>
<td>≥15</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>Mean ± SD.</td>
<td>10.67 ± 4.62</td>
<td>7.52 ± 4.80</td>
</tr>
<tr>
<td><strong>Attending training workshops</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>55.6</td>
</tr>
</tbody>
</table>
Figure (1): Head nurses’ department (n=27)

Figure (2): Distribution of staff nurses according to department (n=241)
Figure (3): Head nurses’ overall level of ethical leadership (n=27)

Figure (4): Overall level of staff nurses’ perception of ethical leadership (n = 241)
Figure (5): Distribution of staff nurses according to their level of job stress (n = 241)

Table (2): Correlation between head nurses’ perception about ethical leadership and staff nurses’ job stress

<table>
<thead>
<tr>
<th>Head nurse ethical leadership</th>
<th>Staff nurses’ job stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Staff nurses’ job stress</td>
<td>0.496</td>
</tr>
</tbody>
</table>

r: Pearson coefficient
Statistically significant at p ≤ 0.05

Table (3): Correlation between staff nurses’ perception of head nurses’ ethical leadership and their job stress (n = 241)

<table>
<thead>
<tr>
<th>Staff nurses perception of head nurse ethical leadership</th>
<th>Staff nurses’ job stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
</tr>
<tr>
<td>Staff nurses’ job stress</td>
<td>-0.200^*</td>
</tr>
</tbody>
</table>

r: Pearson coefficient
*: Statistically significant at p ≤ 0.05
Discussion

Ethical leadership within nursing environment is a critical factor that influences not only patient outcomes but also the well-being of nursing professionals, including staff nurses. Head nurses play a pivotal role in shaping the ethical climate of their units and organizations (19, 20). Their leadership style and ethical behaviors have a direct impact on staff nurses’ perceptions and experiences in their work environment (21, 22). Staff nurses often face numerous challenges and stressors in their daily practice, and the ethical leadership displayed by their head nurses can significantly influence their job stress levels. So, the present study aimed to assess head nurses' ethical leadership and its relation to staff nurses' job stress (23, 24).

Head nurses and staff nurses’ perception of ethical leadership

The findings of the present study showed that nearly half of the head nurses had high perception level of overall ethical leadership while, one third of staff nurses had high perception level of the overall ethical leadership. This may be due to head nurses are honest and ethical. Hesham Sakr et al. (2022) (25) clarified that nurses” perceived moderate mean percent score of overall ethical leadership behavior represented in its all dimensions in the following order; concern sustainability, role clarification, ethical guidance, integrity, fairness, power sharing and people orientation.

These means that those head nurses are believed in ethical leadership. So, those head nurses 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. These findings were supported by the study of Florell (2021) (17) who revealed that nurses had higher scores on ratings of ethical leadership. Mahran et al. (2022) (26) reported that study subjects had high levels of ethical leadership. Hesham Sakr et al. (2022) (25) revealed that less than half of participants perceived high levels of ethical leadership behavior. Badran and Akeel (2022) (27) found that the ethical profile of nursing managers was at a high level. Also, Abd Elmaksoud et al. (2021) (28) found more than half of nurses had spread awareness of ethical leadership.

On the contrary, Elsayed et al. (2020) (29) revealed that nurses had high mean percent of overall ethical leadership. Badran and Akeel (2022) (27); Si et al. (2023) (30) indicated that high percent of staff nurses had moderate perception level of ethical leadership. Mahran et al. (2022) (26) reported that participant’s had low perception levels of ethical leadership. Badran and Akeel (2022) (27) showed that the level of nursing managers’ ethical leadership was moderate from the nurses’ point of view.

In addition to, Ali Awad et al. (31) reported that two thirds of nurses had a moderately positive perception of ethical leadership. Kjörk (32) found that more than half of nurses had moderate ethical leadership level. Kjörk (32) revealed that more than half of studied nurses had low perception level of ethical leadership.

Staff nurses’ job stress
The findings of the present study clarified that more than half of staff nurses had low level of the overall job stress. Staff nurses had low level of uncertainty patient & treatment, dealing with death & dying and inadequate preparation, workload and conflict dimension of job stress. These results may be due to head nurses had high perception level of overall ethical leadership. The finding of the present study was disagreed with Abdelkawy et al. (2023)\textsuperscript{(33)} illustrated that, less than one-third of the studied nurses had mild occupational stress, while more than two-fifth of the them had severe occupational stress. In contrast Luthfiyah et al. (2022)\textsuperscript{(34)} found that nurses had heavy work stress levels in Egypt, Indonesia Korea, Tunisia nurses having severe stress levels. Said and El-Shafei (2021)\textsuperscript{(35)} found that nurses in three quarters of nurses Zagazig Fever Hospital had high stress level versus sixty in Zagazig General Hospital. Tavakoli et al. (2018)\textsuperscript{(36)} clarified that more than two thirds of Emergency nurses had moderate stress levels.

Concerning correlation and relation

There was a significant negative correlation between staff nurses’ total perception of head nurses’ ethical leadership and their job stress. Ethical leadership is characterized by behaviors such as fairness, transparency, integrity, and concern for the well-being of staff. When these qualities are present in leadership, it can create a supportive and positive work environment, which in turn can help reduce job stress among staff nurses. This result was compatible with Alam\textsuperscript{(37)} result who demonstrated that there was a highly significant negative correlation between head nurses’ leadership behavior and nurses’ job stress.

Conclusion

It can be concluded that nearly half of head nurses and one third of staff nurses at Tanta University had high perception level of overall ethical leadership. More than half of staff nurses had low level of the overall job stress. There was a significant negative correlation between staff nurses’ total perception of head nurses’ ethical leadership and their job stress. There is no significant correlation between head nurses’ perception about ethical leadership and staff nurses’ job stress.

Recommendation

On light of the finding obtained from the present study the following were recommended to top management at Tanta University Main hospital:

- Provide training programs for all nursing staff levels about ethical leadership and its dimensions especially: power sharing, role clarification, and concern for sustainability dimensions of ethical leadership.
- Prim importance attending in-service education programs on head nurses’ ethical leadership as pre request for promotion for nursing managers’ position
- Improve head nurses’ perception about ethical leadership as the strategy to reduce staff nurses’ job stress.
- Conduct stress management courses offered to all nursing staff with the goal to manage stress while it is in early stages.
Future Research,
- Further studies by using larger probability sample for generalization of the results by making comparison between two hospital or more to know the sources of stress between nurses.
- Study head nurses' ethical leadership association with other variables like participation in decision making, career success, emotional intelligence and job performance.

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