

Relation between Head Nurses Boundary Spanning Leadership and Nursing Team Effectiveness

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Abstract

Background: Boundary spanning is essential for head nurses since nursing team does not work alone, as well nurses function in an intricate healthcare environment with numerous responsibilities, where nurses often in need for autonomous decision making because of critically ill patients. **Aim:** To assess the relation between head nurses boundary spanning leadership and nursing team effectiveness. **Research design:** A descriptive correlational study design was used. **Setting:** The study was conducted at in following departments at Tanta University main hospitals in nine setting namely: (gynecology and obstetrics, cardiac, neurology, plastic, tropical, pediatric, ophthalmology, chest and medical departments were included in the study. **Subjects:** Includes all staff nurses (n=447) **Tools:** Two tools were used to collect the needed data. Head Nurses Boundary Spanning Scale and Team Effectiveness Questionnaire. **Results:** (38.0%) of staff nurses reported that their head nurses had high level of all dimensions of head nurses boundary spanning leadership. **Conclusion:** There was positive significant statistically correlation was found staff nurses perception of head nurse boundary spanning leadership and their team effectiveness. **Recommendations:** The hospital management needs to priming significance toward change the systems, policies, and practices of the hospitals to abridge the application of boundary spanning and team effectiveness on making the choices that increase nurses' satisfaction.

Keywords: Boundary spanning Leadership, Head nurses, Nurses Team Effectiveness.

Introduction

Nursing is a healthcare profession that focuses on the care of individuals and their families to help them recover from illness and maintain optimal health and quality of life. Nurse's work in hospital units relies on various inputs from outside the unit, such as information on

patients' needs and new technologies, support from other professionals, departments and upper management (Heale et al., 2020). Nurse leaders must create a positive work environment by ensuring access to relevant resources and information, enhancing collaborative relationships between physicians and nurses, and linking staff

nurses to hospital wide issues (**Hirst & Mann, 2020**).

Efforts to coordinate input flows, such as information relationships with upper management or other units are referred to as boundary spanning. First-line managers are typically boundary spanners (**Finegan et al., (2020)**). Boundary spanning is one of the nurse managers' roles. Nurse Manager's boundary spanning was defined as their actions to establish linkages and to manage interactions between their units and parties inside and outside the hospital, such as other professionals, other units, other organizations and patients (**Hejazi et al., 2019**).

Boundary spanning classified into six domains: Feedback utilization, Clarifying the position, buffering, informing and persuading, cooperation and coordination and connecting. Feedback utilization, which addresses obtaining and bringing in feedback from other professionals about a unit's performance (**Meyer et al., 2019**). Clarifying the position, which reflects communicating to team member's policies, decisions, evaluations and expectations about hospital and nursing divisions and enhancing their understanding of these? Buffering which represents controlling outside pressures and requests to protect team members from conflict and overloading (**Avilov, 2020**).

Informing and persuading, which reflects informing others of unit's goals and activities, their importance, and their progress; and persuading others to obtain external support as needed (**Mell**

et al., 2021). Cooperation and coordination or actions to obtain cooperation and coordinate efforts with other units and professionals to improve the unit's performance. Connecting, or understanding where unit nurses can obtain support and resources and supporting unit members' access to these (**Srivastava & Tang, 2020**).

Nurses as health professions is required to work together to provide quality treatment for both patients and families in any healthcare setting. In this regard, the nursing profession continues to concentrate on teamwork that aims at ensuring protection and satisfaction for patients and staff (**Heale et al., 2019**). Team effectiveness defines the satisfaction of team members with their work process and stakeholders' satisfaction with the outcomes of that process. Team effectiveness is based on eight dimensions; purpose and goals, roles, team processes, team relationships, intergroup relations, problem solving, passion and commitment (cohesion), and skills and learning (**Atlas et al., 2021**).

Every organization has a clear purpose and goals statement, which encompasses its underlying value and communicates across the organization. Well-defined objectives and desired results, plus clearly communicated priorities and expected actions (**Posner et al., 2020**). Roles well-defined responsibilities and acceptance of a leader. Team processes explain the basic features of the interaction and organizational patterns that translate input into output (**Reid et**

al., 2021). Team relationships relationship between team members is the key to the success of any organization (De Regge et al., 2020).

Intergroup relations allow team members to be initiative in resolving issues between themselves without involving team leader. Problem solving team able to resolve conflicts with others team collaboratively and reach to effective solution (Marrone et al., 2021). Passion and commitment (cohesion) team has a strong sense of accomplishment relative to our work and a proud to be a part of the team. Skills of team members embrace continuous improvement as a way of life and learning from mistakes to make use various forms of training to keep their skills up-to date (Avilov, 2021).

Significance of study

Head nurses and team work have a direct impact on the ability for an organization to carry out its mission. You need leadership to make sure everyone on your team is going in the same direction and working towards the same goal. Good leadership provides a clear vision for the team (Fick-Cooper et al (2019). Boundary spanning role and its related results it can influences nurses' sense of the need for autonomy to make daily clinical decisions, so when nurses have high-quality professional supervision and boundary spanning activities through head nurses' role, they are typically successful and work autonomously. Nurses function in an intricate healthcare environment with numerous responsibilities. Head nurses therefore are significant to

optimally merging the nursing teams' labor via boundary spanning role, in such clinical environment (Kislov, R. (2019).

Aim of the study

The study aim is to assess the relation between head nurses boundary spanning leadership and nursing team effectiveness.

Research Questions

- 1- What are the levels of head nurses' boundary spanning?
- 2- What are the levels of team effectiveness among nurses?
- 3- What is the relation between head nurse boundary spanning and nursing team effectiveness.

Subjects and Method

Research design

A descriptive correlational study design was used in the present research.

Setting

The study was conducted at in following departments at Tanta University main hospitals in nine setting namely: (gynecology and obstetrics, cardiac, neurology, plastic, tropical, pediatric, ophthalmology, chest and medical) departments were included in the study.

Subjects

The subject of this study was includes the previously mentioned setting and a simple random sample of staff nurses (n=447).

Tools

Two tools were used to collect the needed data:-

Tool (I): Head Nurses Boundary Spanning Scale: This tool consisted of two parts as the following:

Part I: Personal characteristics data sheet: This part include questions related to personal data such as; Name, age, sex, marital status, educational level, years of experience in nursing field, hospital and unit name, and years of experience in the current position or department.

Part II: Head Nurse Boundary Spanning leadership: It was developed by **Onishi's (2016)** to assess to what extent staff nurses perceived their head nurses do boundary spanning activities. Head nurse boundary spanning included six **dimensions** grouped into:

-**Feedback utilization** included 4 items, **Clarifying the position** included 4 items, **Buffering** included 4 items, **Informing and persuading** included 6 items, **Cooperation and coordination** included 6 items, **Connecting** included 7 items.

Scoring system

Staff nurses' response was measured on 5-points Likert Scaling varying from 1(never), 2 (often), 3(rarely), 4 (sometimes) to 5 (always). A higher score denoted that the staff nurses perceived that their head nurses do boundary spanning well. The total scale will be calculated according to cutoff point and summing scores of all categories.

- High boundary spanner level $\geq 80\%$
- Moderate boundary spanner level $< 60\% - 80\%$
- Low boundary spanner level $< 60\%$

Tool (II): Team Effectiveness Questionnaire

This questionnaire was developed by National Health Service (NHS) (2014) .

Its purpose is to assess the team effectiveness among staff nurses. This questionnaire categorized into eight dimensions namely:

-**Purpose and goals** included 7 items, **Roles** included 7 items, **Team processes** included 8 items, **Team relationships** included 7 items, **Intergroup relations** included 5 items, **Problem solving** included 5 items, **Passion and commitment** included 7 items, **Skills and learning** included 4 items.

Scoring system

The responses of staff nurses were measured on 5- points Likert as follow; 5(strongly agree), 4(agree), 3(neutral), 2(disagree) to 1(strongly disagree). Total of each dimensions and the total scale was calculated according to cutoff point and summing scores of all categories.

- High level of team effectiveness $\geq 80\%$.
- Moderate level of team effectiveness $\geq 60\% - < 80\%$
- Low level of team effectiveness $< 60\%$.

Methods

-Official permission to conduct the study was obtained from the administrator of Tanta Faculty of Nursing and was submitted to the responsible authorities of the selected setting.

-The purpose of the study was explained and made clear to the directors of hospital and managers of each unit to gain their cooperation.

-Ethical and legal considerations were maintained all over the study as the following:

- a. The approval of the ethical committee was obtained with code 95/5/2022.
- b. The researcher introduced herself to the participants. A full explanation of the aim and method of the study was given to obtain their acceptance and cooperation as well as their informed consent.
- c. The right to abstain or terminate participation at any time was respected.
- d. The nature of the study was not causing any harm or pain for the entire subject.
- e. Assuring nurses about the privacy and confidentiality of collected data, they explain that it was used only for the study purpose.

-After reviewing the related literature and different studies in this field, the tools were developed by the researcher and translated into the Arabic language to collect data from nurses.

-Head Nurse Boundary Spanning Leadership was developed to assess what extent staff nurses perceived their head nurses do boundary spanning activities and Tool (II): Team Effectiveness was developed to assess the team effectiveness among staff nurses.

-Tools were reviewed with the supervisors, then submitted to five experts in the area of specialty from the same department of administration in the Nursing Faculty of Tanta for testing the content and face validity.

a-The five experts were one professor of the nursing administration department from the Nursing Faculty of

Tanta University. Two professors of the nursing administration department and two assistant professors of the nursing administration department from the Nursing Faculty of Tanta University. All jury was from the Nursing Faculty of Tanta.

b-The experts were asked for some modifications related to grammatical language and the rephrasing of some sentences. The face validity of the tools was calculated based on experts' opinions after calculating the content validity index was 96.4% for tool (I) and 99% for the tool (II).

-A pilot study was carried out on 10% of subject (N=44) after the development of the tools. The aim of pilot study was to test the sequence of items, clarity, applicability and relevance of question. Necessary modifications were included clarification, omission of certain questions and adding others and simple work related words were used.

Results

Table (1): Represents the distribution of nursing staff according to their personal characteristics. As noticed in the table, the nursing staff's ages ranged between 20 up to 50 years old. The majority (93.7%) of the total staff nurses were females. The majority (82.1%) of the total staff nurses were divorced. About (34.9%) of the staff nurses had intermediate education in nursing and (56.2%) more than half of the staff nurses had a bachelor of nursing degree. Around (13.6%) of nursing staff were in medical department. Around more than half

(56.4%) of the nursing staff had >5 years of experience.

Figure (1): Show staff nurses perception of head nurses boundary spanning leadership. It show that 38.0% percent of staff nurses reported that their head nurses had high level of head nurses boundary spanning leadership. While percent (35.6%) staff nurses reported that their head nurses had low level of head nurses boundary spanning leadership. While percent (26.4%) staff nurses reported that their head nurses had moderate level of head nurses boundary spanning leadership.

Table (2): Represents staff nurse's perception level of head nurse's boundary spanning leadership. It was observed in table as total that high percent (38.0%) staff nurses reported that their head nurses had high level of all dimension of head nurse's boundary spanning leadership. About half of staff nurses perception levels (52.1% and 50.3%) of staff nurses reported that their head nurses had high level about feedback utilization and clarifying the position dimension respectively.

Also near to half percent (47.2% and 42.5%) of staff nurses reported that their head nurses had high level about buffering and informing and persuading dimensions. Also 40.5% of staff nurses perceived that their head nurses had high level about cooperation and coordination dimension and 36.2% of them perceived that their head nurses had high level about connecting dimensions.

Figure (2): Shows staff nurses mean percentage score regarding their head

nurse boundary spanning leadership. It show that the highest mean percent score regarding head nurse boundary spanning is feedback utilization, buffering, clarifying the position, informing and persuading, cooperation and coordination and connecting respectively (75.1, 73.6, 72.9).

Table (3): Show staff nurses mean percentage score regarding their head nurse boundary spanning leadership. It show in the table as total that the highest mean percent score regarding head nurse boundary spanning is feedback utilization, buffering, clarifying the position, informing and persuading respectively (75.06 ± 23.90 , 73.57 ± 22.23 , 72.90 ± 25.11 , 71.72 ± 25.70).

Figure (3): Show distribution of staff nurses level of team effectiveness. It show that about half (56.4%) of staff nurses had moderate level of team effectiveness. While percent (31.1%) of staff nurses had high level of team effectiveness.

Table (4): Show staff nurses perception level of team effectiveness. This table clears that about half (51.2 and 51.0%) of staff nurses had high level of learning and skills and inter group relationship of team effectiveness respectively. Near to half (41.8%) of staff nurses had high level of team process of team effectiveness. While, more than half (54.6% and 54.4%) of staff nurses had moderate level of roles and passion and commitment of team effectiveness respectively. Also more than half (52.1%) of staff nurses had

moderate level of problem solving of team effectiveness.

Figure (4): Show staff nurses mean percentage score regarding team effectiveness. It show that the highest score of team effectiveness is learning and skills, inter group relationship, purpose and goals, roles, team processes, passion and commitment, problem solving and team relationship respectively(76.1,75.4,75.0).

Table (5): Show staff nurses mean percentage score regarding team effectiveness. It show that the highest score of team effectiveness is learning and skills, inter group relationship, purpose and goals, roles, team processes, passion and commitment, problem solving and team relationship respectively(76.08 ± 22.18, 75.41 ± 20.45, 74.50 ± 17.73, 74.27 ± 17.76, 74.99 ± 19.44, 73.21 ± 17.19, 68.73 ± 19.30).

Table (6): Represents correlation between staff nurses perception of head nurse boundary spanning leadership and their team effectiveness. It was observed from this table that high significant positive statistically correlation was found between staff nurses perception of head nurse boundary spanning leadership and their team effectiveness.

Figure (5):Represents correlation between staff nurses perception of head nurse boundary spanning leadership and their team effectiveness It was observed from this table that positive significant statistically correlation was found staff nurses perception of head nurse boundary spanning leadership and their

team effectiveness (r=0.670) at (p<0.001).

Table (1): Distribution of Staff nurses according to Their Personal characteristics (n = 447)

Personal characteristics	No.	%
Age		
20 – 30	140	31.3
31 – 40	108	24.2
41 – 50	199	44.5
≥50	0	0.0
Sex		
Male	28	6.3
Female	419	93.7
Marital status		
Single	56	12.5
Married	20	4.5
Divorced	367	82.1
Widower	4	0.9
Scientific level		
Intermediate education	156	34.9
Bachelor of nursing	251	56.2
Post graduate	40	8.9
Years of experience		
<5 years	64	14.3
5 – 10 years	131	29.3
>5 years	252	56.4
Department		
Gynecology and obstetrics	50	11.2
Cardiac	50	11.2
Neurology	48	10.7
Plastic	51	11.4
Tropical	38	8.5
Pediatric	49	11.0
Ophthalmology	49	11.0
Chest	51	11.4
Medical	61	13.6

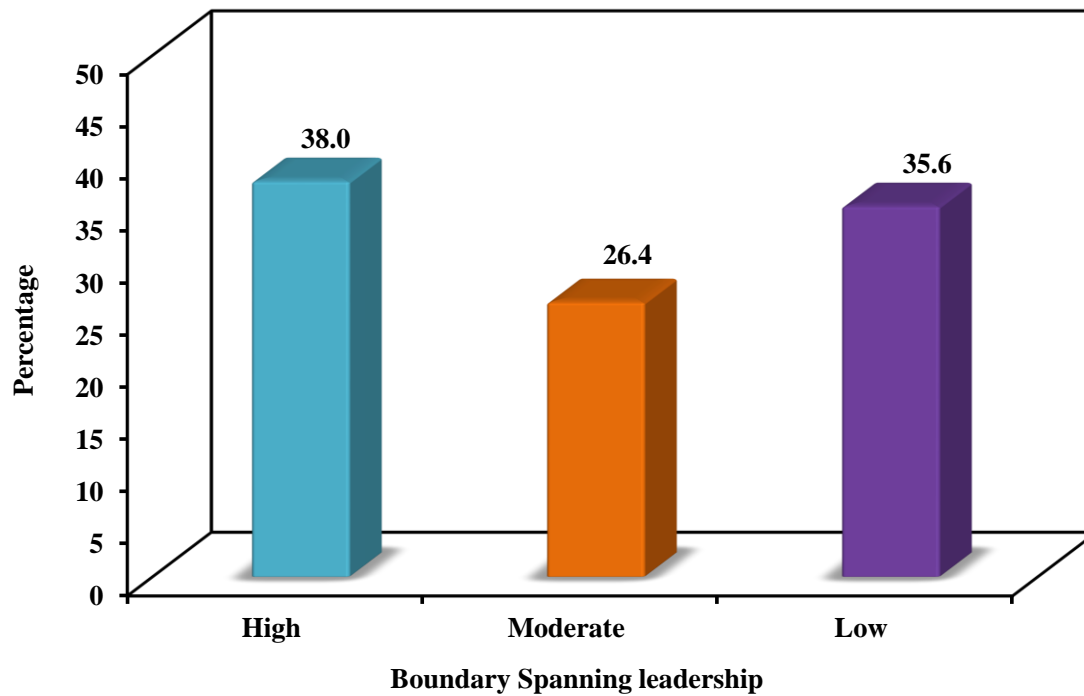


Figure (1): Staff nurses' perception of head nurses' boundary spanning leadership.

Table (2): Staff nurses perception level of head nurses' boundary spanning leadership (n = 447)

Head nurses boundary spanning items	High (≥80%)		Moderate (≥60 % - < 80%)		Low (<60%)	
	No.	%	No.	%	No.	%
Feedback utilization	233	52.1	100	22.4	114	25.5
Clarifying the position	225	50.3	71	15.9	151	33.8
Buffering	190	42.5	126	28.2	131	29.3
Informing and persuading	211	47.2	91	20.4	145	32.4
Cooperation and coordination	181	40.5	73	16.3	193	43.2
Connecting	162	36.2	80	17.9	205	45.9
Overall	170	38.0	118	26.4	159	35.6

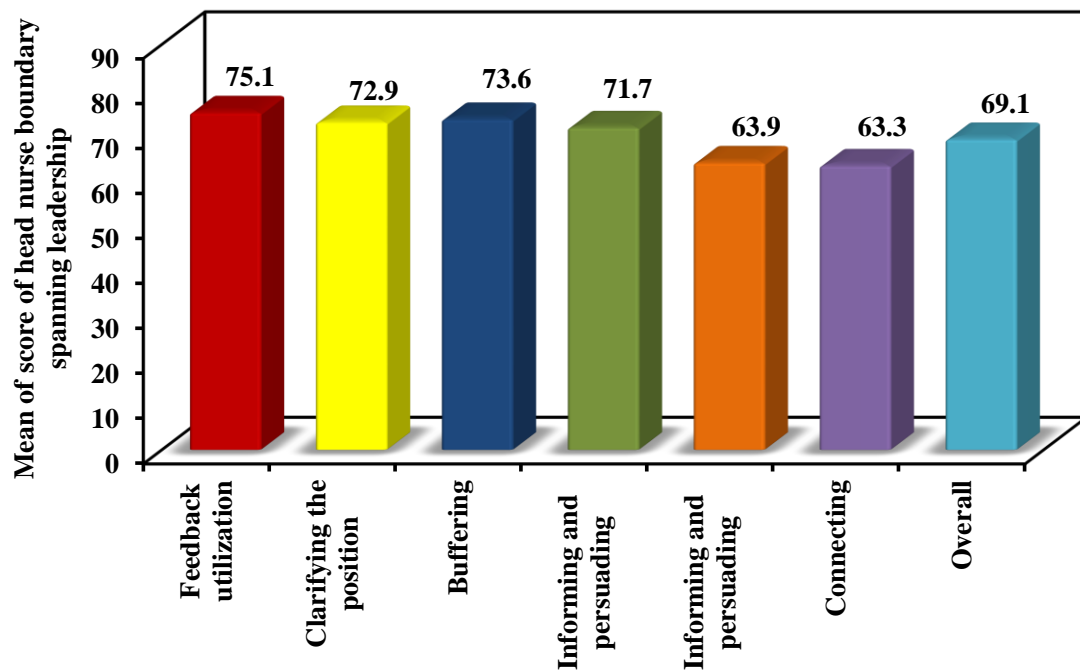


Figure (2): Staff Nurses' mean percentage score of head nurse boundary spanning leadership

Table (3): Staff nurses' mean percentage score of head nurse boundary spanning leadership (n = 447)

Head nurses boundary spanning items	Total Score				% Score
	Score	Min. –Max.	Mean ± SD.	Median	Mean ± SD.
Feedback utilization	(4 – 20)	8.0 – 20.0	16.01 ± 3.82	17.0	75.06 ± 23.90
Clarifying the position	(4 – 20)	8.0 – 20.0	15.66 ± 4.02	17.0	72.90 ± 25.11
Buffering	(4 – 20)	8.0 – 20.0	15.77 ± 3.56	16.0	73.57 ± 22.23
Informing and persuading	(6 – 30)	10.0 – 30.0	23.21 ± 6.17	25.0	71.72 ± 25.70
Cooperation and coordination	(6 – 30)	6.0 – 30.0	21.34 ± 7.13	24.0	63.92 ± 29.72
Connecting	(7 – 35)	10.0 – 35.0	24.71 ± 7.54	25.0	63.26 ± 26.92
Overall	(31 – 155)	53.0 – 155.0	116.7 ± 29.88	124.0	69.12 ± 24.10

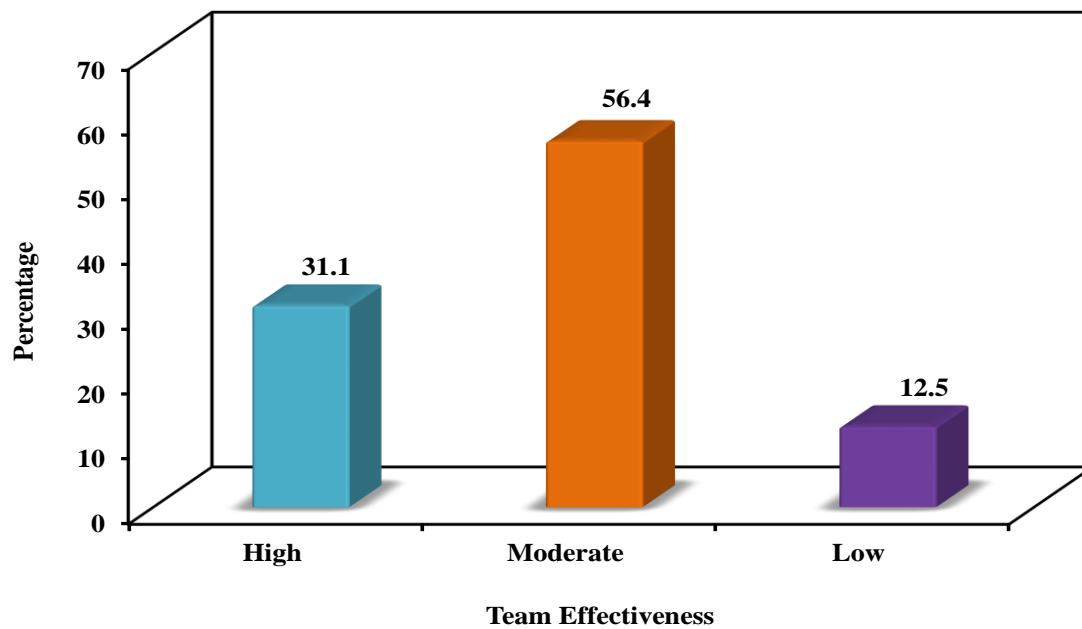


Figure (3): Distribution of Staff nurses' level of team effectiveness.

Table (4): Staff nurses perception level of team effectiveness (n = 447)

Team effectiveness items	High (≥80%)		Moderate (≥60 -< 80%)		Low (<60%)	
	No.	%	No.	%	No.	%
Purpose and goals	181	40.5	165	36.9	101	22.6
Roles	137	30.6	244	54.6	66	14.8
Team process	187	41.8	178	39.8	82	18.3
Team relationship	129	28.9	166	37.1	152	34.0
Inter group relationship	228	51.0	163	36.5	56	12.5
Problem solving	157	35.1	233	52.1	57	12.8
Passion and commitment	133	29.8	243	54.4	71	15.9
Learning and skills	229	51.2	112	25.1	106	23.7
Overall	139	31.1	252	56.4	56	12.5

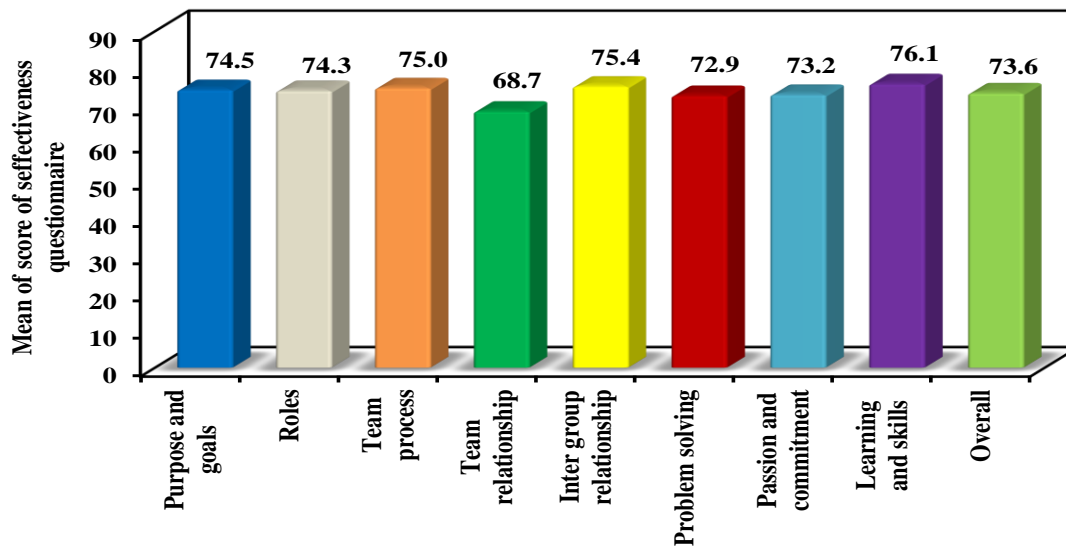


Figure (4): Staff nurses' mean percentage score regarding team effectiveness

Table (5): Staff nurses mean percentage score regarding team effectiveness

Team effectiveness items	Total Score				% Score
	Score	Min. –Max.	Mean \pm SD.	Median	Mean \pm SD.
Purpose and goals	(7 – 35)	18.0 – 35.0	27.86 \pm 4.96	28.0	74.50 \pm 17.73
Roles	(7 – 35)	15.0 – 35.0	27.79 \pm 4.97	28.0	74.27 \pm 17.76
Team process	(8 – 40)	21.0 – 40.0	32.0 \pm 6.22	32.0	74.99 \pm 19.44
Team relationship	(7 – 35)	16.0 – 35.0	26.25 \pm 5.40	25.0	68.73 \pm 19.30
Inter group relationship	(5 – 25)	10.0 – 25.0	20.08 \pm 4.09	21.0	75.41 \pm 20.45
Problem solving	(5 – 25)	9.0 – 25.0	19.59 \pm 3.86	19.0	72.93 \pm 19.31
Passion and commitment	(7 – 35)	16.0 – 35.0	27.50 \pm 4.81	26.0	73.21 \pm 17.19
Learning and skills	(4 – 20)	4.0 – 20.0	16.17 \pm 3.55	17.0	76.08 \pm 22.18
Overall	(50 – 250)	110.0 – 250.0	197.2 \pm 32.91	197.0	73.62 \pm 16.46

Table (6): Correlation between staff nurses perception of head nurse boundary spanning leadership and their team effectiveness questionnaire (n = 447).

Team effectiveness questionnaire		Head Nurse Boundary Spanning leadership						
		Feedback utilization	Clarifying the position	Buffering	Informing and persuading	Cooperation and coordination	Connecting	Overall
Purpose and goals	r p	0.316* <0.001*	0.408* <0.001*	0.591* <0.001*	0.383* <0.001*	0.427* <0.001*	0.480* <0.001*	0.468* <0.001*
Roles	r p	0.621* <0.001*	0.681* <0.001*	0.694* <0.001*	0.699* <0.001*	0.638* <0.001*	0.719* <0.001*	0.732* <0.001*
Team process	r p	0.240* <0.001*	0.408* <0.001*	0.571* <0.001*	0.361* <0.001*	0.345* <0.001*	0.400* <0.001*	0.411* <0.001*
Team relationship	r p	0.467* <0.001*	0.661* <0.001*	0.749* <0.001*	0.620* <0.001*	0.648* <0.001*	0.596* <0.001*	0.671* <0.001*
Inter group relationship	r p	0.567* <0.001*	0.680* <0.001*	0.667* <0.001*	0.692* <0.001*	0.595* <0.001*	0.681* <0.001*	0.700* <0.001*
Problem solving	R p	0.436* <0.001*	0.568* <0.001*	0.698* <0.001*	0.527* <0.001*	0.576* <0.001*	0.652* <0.001*	0.626* <0.001*
Passion and commitment	r p	0.444* <0.001*	0.538* <0.001*	0.620* <0.001*	0.545* <0.001*	0.666* <0.001*	0.717* <0.001*	0.655* <0.001*
Learning and skills	r p	0.209* <0.001*	0.373* <0.001*	0.401* <0.001*	0.341* <0.001*	0.430* <0.001*	0.447* <0.001*	0.410* <0.001*
Overall	r p	0.473* <0.001*	0.620* <0.001*	0.724* <0.001*	0.598* <0.001*	0.618* <0.001*	0.669* <0.001*	0.670* <0.001*

r: Pearson coefficient*: Statistically significant at $p \leq 0.05$

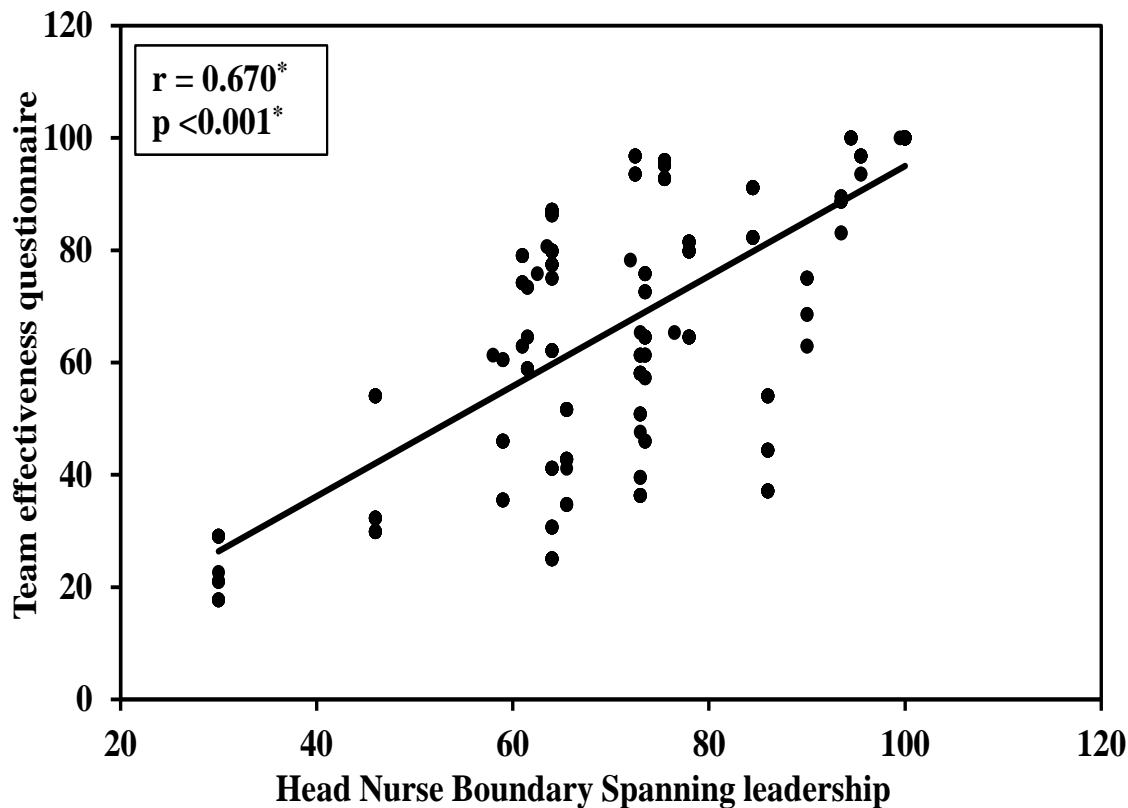


Figure (5): Correlation between head nurse boundary spanning leadership and team effectiveness

Discussion

The health-care environment requires hospitals' unit managers to organize and direct efforts autonomously across their boundaries and to manage relationships with different professionals, units and divisions. Head nurses' boundary spanning behaviors reflected as a critical part of their proficient tasks that deliberate job autonomy of nurses which automatically improve their satisfaction with clinical setting as a whole including work duties and supervision's satisfaction (Xue & Woo, 2022).

The leader's essential mission is to create team boundaries that are sufficiently permeable to allow resources and information in, yet sufficiently impermeable to preserve among team

members a sense of awareness of belonging to the team and a sense of accountability on the part of team members for the team's effectiveness. The team management literature has depicted specific behaviors, such as boundary activities, in which leaders can engage to promote team effectiveness (Nadavet al., 2023). Therefore, the aim of this study was to assess the relation between head nurses boundary spanning leadership and nursing team effectiveness.

Findings of the present study results revealed that was a statistically high level between head nurses' and staff nurses' levels of perception regarding head nurses' boundary spanning leadership for all relational boundary spanning leadership. This may be due to around two-thirds of

the head nurses fall in the age group from forty one to fifty, which with older age leads to more knowledge, situations, experience, and ability to cope acquired through interaction with work. While more than half of nurses fall in the age group \geq fifty with mean age, their middle age and family responsibilities take their attention more.

Moreover, all head nurses, as well as the majority of nurses, were female. The highest percentage of head nurses and nurses were working in intensive care units. Majority of head nurses' and nurses were married. This was due to the fact that most of the female nursing chiefs are older in age and have more years of experience, as there was no demand from male nurses to join the profession as at the present time, and this is due to the development of the profession, and thus the joining of male nurses to the profession is increasing more than in the past.

Regarding staff nurses' perception toward head nurses boundary spanning leadership, the current study demonstrated that more than one third of staff nurses reported that their head nurses had high level of feedback utilization, clarifying the position, while more than one quarter of them reported moderate level of buffering, informing and persuading, cooperation and coordination and connecting domains of boundary spanning leadership. This may be due to the leader's high clarifying the goal, vision and mission to the all staff in the unit, their ability to controlling outside pressures and requests to protect team members from conflict and overloading, there are high levels of

cooperation and coordinate efforts with other units and professionals to improving the unit's performance, their coordination of task performance was grouped into two categories.

Moreover, the level of engagement and participation of staff nurses in decision-making processes can affect their perception of their head nurses' leadership. When staff nurses are actively involved and their input is valued, they are more likely to recognize and appreciate the boundary-spanning efforts of their head nurses.

In this concern, **Hayward, (2019)** stated that head nurses as boundary spanners have to act as connectors to maintain relationships between senior management and staff, experts to offer direction, efficiency and eliminate confusion and is a broker that focus on staff nurses' demands. Along with the study results, **Kiland et al., (2024)** emphasized the difficulty and multifaceted character of the boundary spanning role. A study carried out by **Meyer et al., (2014)**, who argued that when head nurses are perceived as effective boundary spanners, they are likely to create a more supportive and cohesive work environment. This can reduce job stress, improve morale, and lower turnover rates among nursing staff. In the same context,

In addition, **Chrobot-Mason, & Aramovich, (2020)**, whose study found that less than one fifth of the studied respondents agreed that their middle managers were effective in working across boundaries. **Hujala et al., (2022)**, noted that predefined roles for clinical boundary spanners appeared to be

challenging to accomplish in reality. On the other hand, **Martine, et al. (2009)** addressed that spanning professional boundaries occur in health sector to some degree and weak on its process and evidence based on patient outcomes.

The present study result revealed that more than half of the staff nurses had moderate level of team effectiveness, while less than one third of them perceived high level of team effectiveness. A moderate level of team effectiveness could be the result of a balanced approach that emphasizes both task completion and team cohesion without excelling significantly in either area. In addition, the resources available to the team, including staffing levels, equipment, and time, could influence their effectiveness.

Also it may be due to learning and skills dimension of team effectiveness had the highest score followed by inter-group relationship, purpose and goals, roles, team processes, passion and commitment, problem solving and team relationship dimensions, respectively. This may be because hospital may prioritize continuous professional development and training, which enhances team members' competencies and skills. This focus on skill enhancement ensures that team members are well-equipped to handle various tasks and challenges, leading to higher effectiveness. Moreover, the availability of resources such as advanced tools, technologies, and access to information can significantly impact the learning and skills dimension. Teams with sufficient resources can continuously

improve and update their skills, leading to better performance and effectiveness.

This result was congruent with **Kakemam et al., (2021)**, who reported that, nurses perceived a moderate level of teamwork. Also, the present study result was in accordance with **Kohanová et al., (2024)**, whose study found that the highest percentage of the studied nurses reported moderate level of teamwork. On contrary, **Gad et al., (2021)**, who stated that most of the studied nurses had a high perception level towards team work.

Also, a study conducted by **Hassan et al., (2022)** and reported that about two-thirds of studied nurses perceived high teamwork effectiveness level. In addition, **Kohanová et al., (2023)** whose study found that nurses reported high level of teamwork. On the other hand, **Mahmoud et al., (2022)** and **Basiony & Ibrahim, (2023)** stated that most of the studied nurses had good perception toward teamwork.

The present study result highlighted that high significant positive statistically correlation was found between staff nurses perception of head nurse boundary spanning leadership and their team effectiveness. This finding can be interpreted as the perception of strong boundary-spanning leadership by head nurses contributes to higher levels of team effectiveness, as it encourages more integrated, cooperative, and adaptable working environment.

This may be due to the fact that boundary-spanning leadership involves activities that extend beyond the traditional confines of a single team or department, thereby fostering enhanced

communication, collaboration, and resource sharing. Head nurses who effectively engage in boundary-spanning leadership practices can bridge gaps between different units, align team goals with organizational objectives, and facilitate the flow of information. (Liu et al., 2022).

In this concern, Meyer et al., (2014), whose study declared that, head nurses who excel in this type of leadership facilitate better communication, foster collaboration, and ensure the smooth flow of information and resources. These capabilities are particularly vital in nursing teams, where effective coordination and cooperation directly impact patient care outcomes and job satisfaction among nurses.

Along with the present study findings, a study performed by Chrobot-Mason & Aramovich, (2020), stated that emphasized that leaders who engage in boundary-spanning activities can better align their team's goals with broader organizational objectives, thereby enhancing team effectiveness. Consistently, De Regge et al., (2020), who found that, found that boundary-spanning leadership positively influences team cohesion and job satisfaction among health care professionals, reinforcing the idea that effective leadership transcends traditional hierarchical roles.

Also, a study performed by Eljiz et al., (2020), who stated that in settings characterized by interdependence, uncertainty and time constraints, relational coordination is most effective among team members through frequent, accurate and timely communication,

problem solving orientation and shared knowledge, goals and respect. On the same scene. Likewise, a study conducted by Ahmed et al., (2019) reported that leadership practices, which reflect boundary spanning expertise and were positively associated with teamwork, enable managers to connect with staff, to support professional autonomy and to strengthen interdependent team processes. Indeed, nurses value connectivity with managers to navigate work and organizational contexts to achieve high-quality care.

Conclusion

Staff nurses confirmed that there is high significant positive statistically correlation between their perception of head nurse boundary spanning leadership and their team effectiveness.

Recommendations

For the hospital management

-Priming importance to reform the hospitals' policies, methods, and procedures to simplify the utilization of boundary spanning and team effectiveness in making the decisions to improve nurse's satisfaction.

-Enhancing head nurses boundary spanning role and activities through conducting educational program is needed.

For head nurses

-Encouraging nurses to take measures skills to gain cooperation and coordination efforts with other units and improve units performance outcomes incorporating nurses satisfaction and performance.

-Creating more supportive and cohesive work environment to reduce job stress,

improve morale, and lower turnover rates among nursing staff.

For nurses

-Attending training program and workshop about boundary spanning and team effectiveness autonomy to improve their satisfaction.

-Communicating well with other team and their superiors to enhance team spirit and improve performance.

For further study

-Implementation of education program about strategies of boundary spanning among head nurses at intensive care unit.

-Identifying factor affect team effectiveness to staff nurses and improving it.

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