Staff Nurses 'Perception about Teamwork and its Effect on their Job Performance at Menoufia University Hospitals

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Abstract: Background: Recently health care organizations are moving quickly from the concept of a hierarchical organization to one that depends on teams. Ultimately, teams succeed when they are supported by the organization and when they are provided with a clear standard of high- performance expectation. Purpose of the study: Assess the perception of staff nurses about teamwork and its effect on their job performance. Design: A descriptive correlational research design was utilized for this study. Setting: Menoufia University Hospital at Shebin-ELkom. Sampling: Convenience sample of 292 nurses were included at this study. Instruments: Two instruments were used for data collection: Instrument one; Teamwork Perceptions Questionnaire. (TPQ), Instrument two; Observational checklist for measuring Job performance.Results: Nurses had a high perception level towards teamwork (87%). Also, 13% of studied nurses had a moderate perception level towards teamwork. In addition, about two thirds of studied nurses (65.80%) had a high performance level. Also, 34.20% of studied nurses had a moderate performance level. Conclusion: There was a positive highly statistical significant correlation between nurses' perception toward teamwork and their job performance. Recommendation: The hospital should provide effective and continuous training programs for nursing staff based on needs assessment to develop their knowledge and skills and consequently their teamwork and performance.

Key Words: *Staff nurses, Teamwork and Job Performance.*

Introduction

Healthcare organizations enhance the concept of teamwork among its staff to increase the level of productivity and creativity in order to earn competitive advantages and enhance performance. Additionally, the core value of teamwork is the reduction of workload which helps the nurses to perform better without any kind of work pressure because the tasks were distributed equally among all the members of that team. Performance of team affects not just nurses but the organization ultimately, because it can

expand the output of individuals through collaboration. Thus, nurses who work in teams become the standard for the organization (Marques et al. 2020).

Team usually refers to a small group in which the members have a common purpose, interdependent roles and complementary skills (Brgoch, ,Lower-Hoppe, Newman,& Hutton, 2020).Teamwork has members with complementary skills and generates synergy through a coordinated effort which allows each member to maximize his strengths and minimize his weaknesses(**Iorhen, 2019).**

Today, the practice of teamwork in the health care has gained in popularity. When nurses function as part of a unit, and when they act as part of a team, the job itself is easier and more efficient. Teamwork can significantly reduce workloads, increase job satisfaction and retention, improve patient satisfaction and improve job performance. Yet, while many caregivers, health professionals, and decision makers are calling for improved teamwork and the transformation to team-based healthcare **(Monroe, 2021).**

Nursing team building is a proven approach for helping nurses to become more respectful competitors and cooperative team nurses (Secunda et al 2020).Nursing team building function is better when nurses have a clear purpose and implement protocols and procedures effectively. Role of head nurses in building effective work team is to develop a team plan for how nurses will act and work together, include effective use of communication technology to help nurses make better use of face-to-face time. Also, they ensure constant supervision and continuous appraisals, enhance good understanding of team boundaries and the difference between nurses to rich their work team strengths and treat weakness points of nurses and maintain supportive work team environment **(Secunda et al 2020).**

Nurses are critical human resource input in the hospitals' functions of health promotion, curative and preventive care and effective performance of their roles have implications for patients' health outcomes (Crisp, Brownie &Refsum, 2018).

Nurses' job performance is defined as actions that can be observed and

measured against some standards. Job performance contributes to improvement in several aspects in employees such as behavior, attitudes and traits which help to increase the productivity of an organization through fulfilling the expectations, regulations of an organization and needs of individual formal role when he is a member of the organization.

Nurses' behavior can be transformed into performance from just a thought to action. Therefore, a complete view of performance can be achieved if the job performance takes into account both behavior and outcomes (Supri, Rachmawaty, & Syahrul, 2019). Job performance refers to the effectiveness of the person in carrying out his roles and responsibilities related to direct patient care (Andriani, Kesumawati, & Kristiawan, (2018).

Significance of the study

Many claims have been made in recent years about the positive benefits of teamwork for organizations, more specifically, teams are said to contribute to better outcome for health care organizations due to improve nurses ' performance. Teamwork can significantly reduce workloads, increase job satisfaction and retention,

improve patient satisfaction and improve job performance. (Monroe,2021).

Purpose

To assess staff nurses' perception about teamwork and its effect on their job performance.

Research Questions:

❖ What is the level of staff nurses' perception about teamwork at the study setting?

❖ What is the level of staff nurse's job performance?

❖ What is the relation between staff nurses' perception about teamwork and their job performance?

Methods

Research design:

A descriptive correlational research design was used for conducting this study

Setting:

This study was carried out at 13 departments as(Orthopedic, Pediatric, Obstetrics and Gynecology ,Medical-surgical ,Chest and urology) and units(Toxicology, ICU, NICU, Hemodialysis, Operations, Emergency and Burn at Menoufia University Hospital at Shebin El-Kom. A convenience sample of 292 males and

females' nurses who accepted to participate in the study.

Inclusion criteria: The nurses must have at least two years of experience and accept to participate in the study.

Sample size: Total number of staff nurses according to hospital records (2018) was 1200 staff nurses are working at Menoufia University Hospital. The sample size was determined by using the following formula

The total number of nurses to be selected was estimated using the following equation:

Samplesize =

$$\frac{\dfrac{z^2 \times p\,(1-p)}{e^2}}{1 + \left(\dfrac{z^2 \times p\,(1-p)}{e^2 N}\right)}$$

N = population size • e = Margin of error (percentage in decimal form) • z = z-score

Based on past review of literature that reported the correlation between perception of teamwork and job performance to be 0.16 sample size has been calculated at 80% power and CI 95% and it will be 292 nurses.

Instruments for data collection:

The data of this study collected by using two instruments:

First instrument: Teamwork Perceptions Questionnaire (TPQ). It consists of two parts:

Part one: The personal characteristics of study participants (age, gender, qualification, years of experiences, unit name, and marital status).

Part two: Teamwork Perceptions Questionnaire (TPQ)

This questionnaire was adopted from Castner,(2012)**.** It used to assess the individual perceptions of teamwork within the staff nurses. It contains 35 items based on five components of teamwork: team structure(7items), leadership(7items),communication(7items),mutual support(7items), and situational monitoring(7items) (Cronbach'sAlph test was (0.92).

Scoring system:

The scores were based on three points likert scale ranging from disagree (1), uncertain (2), agree (3). The score of each category will be summed up and converted into a percentage score. If the score was ≥75%, it refers to high level of teamwork perception. If the score ranged from 60% to < 75% it

refers to moderate level of teamwork perception. If score was <60% it indicated that nurses' have low level of teamwork perception.

Second instrument: Observational checklist for measuring Job performance:

This structured questionnaire was adopted by (Eid, 2003 and Schwirian, (2006) and modified by the investigator. It aims to assess performance levels among staff nurses. It consisted of 54 items divided into eight dimensions including: assessment (6 items), nursing diagnosis (4 items),plan (4 items),implementation (9 items), health education (7items), evaluation (5items), interpersonal relationship/ communication (11items)and documentation (8items). (Cronbach'sAlph test was (0.78).

Scoring system:

Nurses ' responses were measured on a two-point likert scale. Score of each item were done(2) or not done (1). The scores of each dimension were summed up and conversed into percent scores. If total scores of nurses' performance were <60%, it reflected that nurses' had a low level of performance. If percentages of scores ranged from 60% < 75% then nurses

were considered to have a moderate level of performance and if nurses had the total scores ≥75%, nurses were considered to have a high level of performance.

Validity of the instruments: five experts were selected to test the content and face validity of the instrument from nursing administration department (3 professors from Menoufia University and 2 assistant professors from Tanta University). In order to judge its clarity, relevance and accuracy.Minor modification and rephrasing of some statements were done.

Reliability of the instruments: the two instruments were tested by Cronbach's Alph test, reliability of teamwork questionnaire was (0.92) while the reliability of job performance (was (0.78).

Ethical Consideration:

The study was conducted with careful attention to ethical standards of research and the rights of participants. The respondents' rights were protected by ensuring voluntary participation; so that informed consent was obtained by explaining the purpose, nature, time of conducting the study, potential benefits of the study and how data will be

collected. Each participant was notified that they have the right to accept or refuse to participate in the study.

Pilot study

Reviewing the tools by the experts, the investigator conducted a pilot study before administering the final questionnaire. The purpose of the pilot study was to ascertain clarity, relevance, applicability of the study tools and to determine obstacles that may be encountered during data collection. It also helped to estimate the time needed to fill questionnaire tools. The pilot study was carried out 30 nurses which presented (10%) of sample size. No modification was needed. So this sample of the pilot study was included in the study.

Data collection procedure;

Before collecting data, an official approval letter was submitted to the Dean of the Nursing College to collect data from the pre-mentioned study setting. Also, a written approval letter was submitted to the director of the Menoufia University Hospital at Shebin El-Kom to collect data from the pre-mentioned study subjects. The letter contained the title, purpose of the study, and methods of data collection.

Before beginning to collect data from the study subjects the investigator introduced him to them, explained the purpose of the studyand informed them that their information will be treated confidential and will be used only for the research; additionally, each participant was notified about the right to accept or refuse to participate in the study. Data was collected in the morning, and afternoon shifts, and nurses were asked to fulfill the questionnaire sheets in the presence of the investigator to ascertain all questions were answered.

The time required for each nurse to fill the questionnaire was estimated to be 25-30 minutes. In order to collect data using instrument two, the investigator made three observations of the performance of each nurse at different shifts. The data collection started in November 2019 and ended in March 2020.

Statistical design:

The collected data were organized, tabulated and statistically analyzed using SPSS (Statistical Package for Social Science)software statistical computer package version 26. For quantitative data, the range, mean and standard deviation were calculated.

Comparison was done using Chi-square test (χ^2). For comparison between means for two variables in a sample, paired samples test was used.

Result

Table 1: **Percentage Distributions of Study Sample According to their Personal Characteristics (n= 292):**

Personal characteristics	No.	%
Age / years		
<20 year	27	9.20
20 to< 35 year	207	70.9
≥ 35 year	58	19.9
Gender		
Male	70	24.0
Female	222	76.0
Marital status		
Single	58	19.8
Married	226	77.4
Divorced	4	1.40
Widow	4	1.40
Educational level		
Nursing school diploma	63	21.6
Associated nursing degree	152	52.1
Bachelor nursing degree	71	24.3
Other	6	2.0
Years of experience		
<5 years	99	33.9
5 to < 10 years	94	32.2
≥ 10 years	99	33.9
Unit		
Inpatient departments	170	58.2
Critical care units	122	41.8
Total	**292**	**100**

Table (1): Represents percentage distribution of study sample according to their personal characteristics. The table shown that, 70.9% of study sample aged between 20 to <35 years and most of them were married and female (77.4% and 76%) respectively. Also the highest percentage of study sample had associated nursing degree 52.1%. Concerning experience, the highest percentage of study sample (33.9%) had <5and ≥10 years of experience. More than half of study sample (58.2%) worked at inpatient departments.
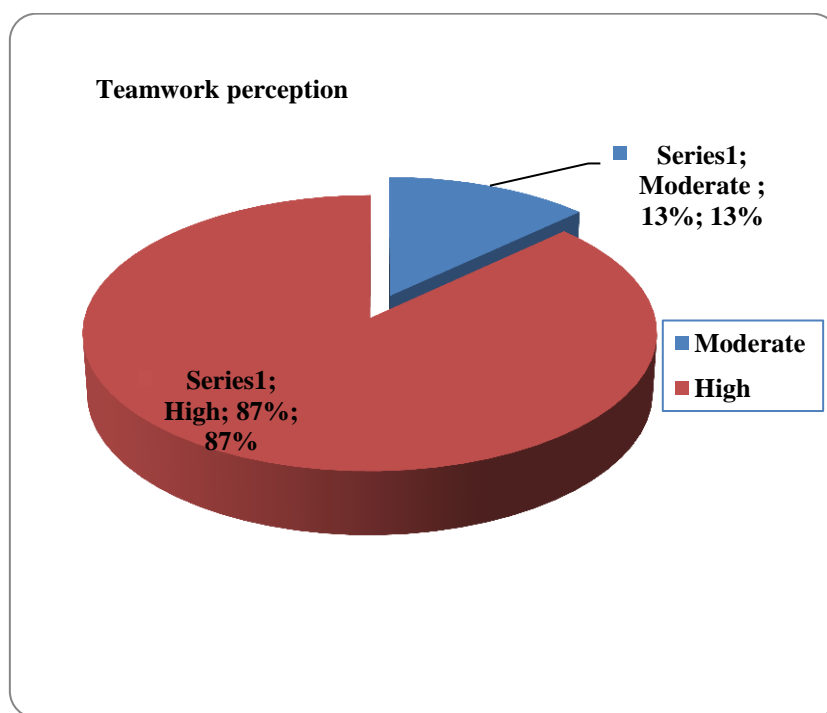
Table (2): Ranking of staff nurses according to their' perception of teamwork dimensions (arrange according to the order of their ranking).

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Teamwork Dimensions	Staff nurses (n=292)				
	Minimum	Maximum	Mean±SD	Mean Percentage %	Ranking
Team structure	11	21	18.7±2.31	89.0	1
Leadership	7	21	17.1±3.18	81.4	5
Situation Monitoring	11	21	17.6±2.66	83.8	4
Mutual Support	12	21	18.4±2.25	87.6	2
Communication	12	21	18.3±2.33	87.1	3
Total teamwork Perception score	**69**	**105**	**90.1±12.73**		

Table (2) Demonstrates ranking of staff nurses according to their' perception of teamwork dimensions. As shown from the table, the total mean score of nurses' perceptions of teamwork was (90.1±12.73). The highest mean score with the first ranking related to team structure (18.7±2.31) with a mean percentage of (89.0%). Besides the lowest mean score with the last ranking related to leadership (17.1±3.18) with a mean percentage of (81.4%).

Figure (1): **Percentage distribution of nurses according to their total teamwork perception level.**

Figure(1) Demonstrates percentage distribution of nurses according to their total teamwork perception level. As shown in the figure, the majority of studied nurses (87%) had a high perception level towards teamwork. Also, 13% of studied nurses had a moderate perception level towards teamwork.
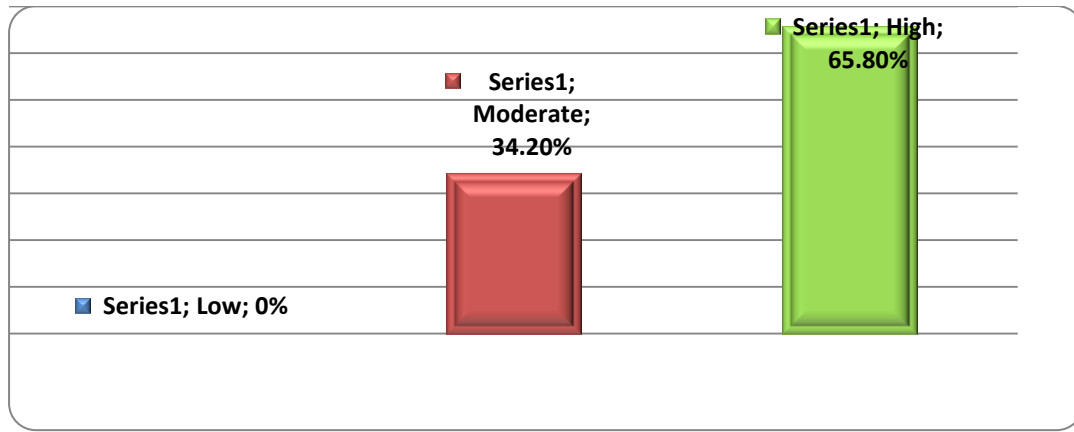
Table (3): Ranking of staff nurses according to their job performance

Nurse performance Dimensions	The studied nurses (n=292)				
	Minimum	Maximum	Mean ± SD	Mean Percentage %	Rankig
Assessment	11	22	16.9±2.93	76.8	8
Nursing Diagnosis	4	8	6.75±2.49	84.3	**1**
Plan	4	8	6.32±1.31	79	7
Implementation	9	18	14.5±2.79	80.5	4
Health education	7	14	11.1±2.07	79.3	6
Communication	13	26	21.8±3.90	83.8	2
Evaluation	5	10	7.97±1.39	79.7	5
Documentation	8	16	13.0±2.02	81.3	3
Total performance score	**61**	**122**	**98.5±14.8**		

Table (3) Illustrates ranking of staff nurses according to their job performance. As shown from the table, the total mean score of nurses' job performance was 98.5±14.8. The highest mean score with the first ranking was related to the nursing diagnosis dimension (6.75±2.49) with a mean percent of (84.3%). Also, the lowest mean score with the last ranking was related to Assessment dimension (16.9±2.93) with mean percent of (76.8%).

Figure (2): Distribution of staff nurses according to their level of job performance

Figure (2) demonstrates the distribution of staff nurses according to their level of job performance. As shown in the figure, the majority of studied nurses (65.80%) had a high performance level. Also, 34.20% of studied nurses had a moderate performance level.

Table (4): Correlation between Studied Nurses' Perception toward Teamwork Dimensions and their Job Performance

Teamwork perception	Job Performance	
	R	P value
Team structure	0.127	0.030*
Leadership	0.145	0.013*
Situation Monitoring	0.166	0.005**
Mutual Support	0.132	0.024*
Communication	0.119	0.042*

*P≤.05 **P≤.01

Table (4) states correlation between studied nurses according to their perceptions of teamwork and job performance. It showed that there was a highly positive statistically significant correlation between Situation Monitoring and job Performance, also there was a positive statistically significant correlation between teamwork perception categories and job Performance.

Table (5): Correlation between Studied Staff Nurses Perception toward Teamwork and their Job Performance.(n=292)

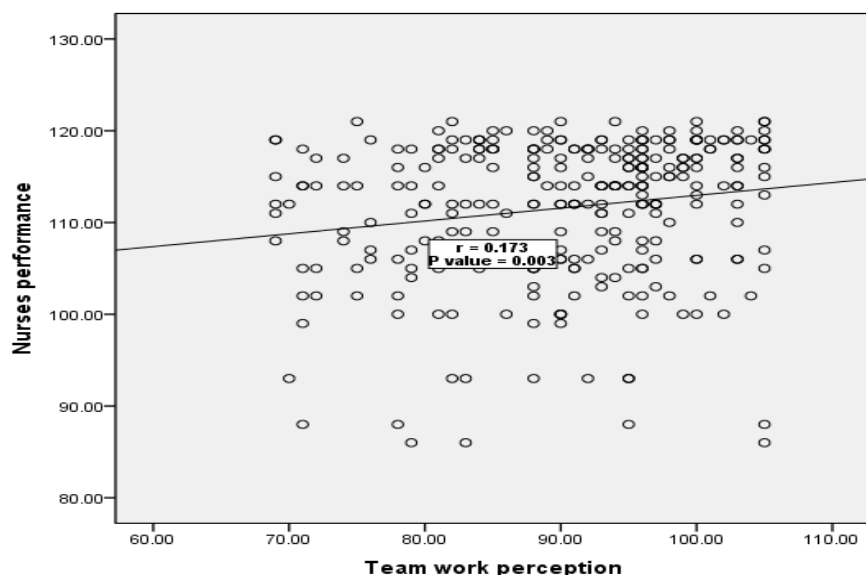| Studied variables	Teamwork perception	
	R	P value
Performance	0.173	**0.003****

**High significant

Table (5) and Figure (3) show Correlation between studied nurses' perception toward teamwork and their job performance. It showed that there was a highly positive statistically significant correlation between studied staff nurse's perception toward teamwork and their job performance.

Discussion

Organizations today concentrate on teamwork to provide a competitive advantage, solve problems through collaboration, and encourage employee creativity. Teamwork is a vital aspect of the functioning of any health care organization Dinh, & Salas, (2017).This study was conducted to assess nurse's perception about teamwork and its effect on their job performance.

For staff nurse's perception of teamwork, the current study showed that the majority of studied nurses had a high perception level about teamwork. While a very small percentage of studied nurses had a moderate perception level about teamwork. From the investigator's point of view, this finding may be due to presence of substantial efforts for effective teamwork; every unit has clearly articulated goals, staffs understand their roles and responsibilities, staff within unit share information that enables timely decision making and makes efficient use of resources.

Therefore, supervisors and managers incorporate teamwork training programs as part of their in-service education efforts for effective teamwork and functioning. This result was similar to Kakemam et al. (2021) who conducted study about nurses' perception of teamwork and its relationship with the occurrence and reporting of adverse events, and revealed that, nurses' perception of teamwork was moderate to high. Also, Abdel Gayed (2017) revealed that, almost three quarter of nurses perceived the importance of teamwork.

In relation to ranking the teamwork dimensions, the first dimension was team structure dimension, followed by mutual support, and communication. Fromthe investigator's point of view, this may be due to the great efforts for support and advocacy among team members that are tried by the organization.In addition to team leaders' experience in structuring teams and in exerting the concept of mutual support among their staff nurses.

Meanwhile leadership was rated at the last ranking among different teamwork perception sub-scale dimensions. From the investigator' point of view, lack of awareness of supervisors and management members that may be lead to many conflicts. Another reason could be due to lack of involvement of

team leaders in the planning and discussing of patient care and in constructively managing conflicts.

This result was congruent with Kakemam et al. (2021), who revealed that team structure was ranked at the first dimension and leadership and situation monitoring were at the last ranking.

Concerning nurses' job performance, the current study declared that the majority of studied nurses had a high performance level. Also, about one third of studied nurses had a moderate performance level. From the investigator's point of view, this may be due tothe application of knowledge, supervision from head nurses to promote the process of work itself. Appropriate training and motivation.

The current study showed that the highest mean score with the first ranking was related to the nursing diagnosis dimension followed by communication and documentation. From the investigator's point of view; this may be due to variety of disease, repeated exposure to the same disease, and years of experience of staff and use of internet and technology as well as rapidity of collecting information about disease and use of

communication skills between staff to share updates and use of legible documentation.

While the assessment dimension was the last ranking due to, the increasing numbers of patients, work pressure, dependence on physician assessment and there is no time to complete assessment properly. This finding was congruent with, Hussein (2020), who revealed that studied nurses had good competence level related to nursing diagnoses.

In relation to the correlation between staff nurses' performance and teamwork perception, the current study showed that there was a highly positive statistically significant correlation between teamwork perception and nurses' performance. From the investigator's view, this result may be due to increased sense of teamwork, enhanced communication abilities between team members, people working in team functioning more efficiently due to knowledge and skills acquisition, being less prone to stress.

This finding was consistent with AlArafat, & Doblas, (2021), who studied the impact of effective teamwork on employee performance, who reported that there was a

significant impact for teamwork on employee performance. At the same line, this finding was consistent with Phina, ,Arinze, Chidi,& Chukwuma, (2018)) who studied the effect of teamwork on employee performance and revealed that there was a varying degree of positive relationship between the study variables.

Conclusion

In the light of the current study findings, it can be concluded that: the majority of studied nurses had a high perception level towards teamwork. While less than one fifth of studied nurses had a moderate perception level towards teamwork. Additionally, the first ranking with the highest mean score of teamwork dimension was team structure, while the last ranking with the lowest mean score was leadership.

Also, about two thirds of studied nurses had a high level of performance; almost one-third of studied nurses had a moderate level performance. Also, the first ranking with the highest mean score of performance was the nursing diagnosis dimension, while the last ranking with the lowest mean score was Assessment dimension. . Finally, there was a highly

positive statistically significant correlation between nurses' perception of teamwork and their job performance.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

1) Health organizations should develop strategies that enhance the culture of teamwork and collaboration.

2) Nurses should attend regular in service education programs that improve their perception about teamwork, enable them to work in teams and improve their performance

3) Nurses and nurse managers should receive training programs about team building and team dynamics to enhance their abilities in handling team conflicts and create an atmosphere of coordination, collaboration and team spirit.

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