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Nurses' Teamwork and Organizational Commitment in Critical care Units

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Abstract

BACKGROUND: Effective teamwork promotes a work environment that has a positive impact on both staff and patients which effects on job satisfaction, and quality of patient care.**AIM:** to identifying the relationship between staff nurses' perception toward teamwork and their organizational commitment in critical care units through assessing staff nurses' perception towards teamwork and determining the level of their organizational commitment, and finding out the relationship between staff nurses' Perception toward teamwork and their commitment for the organization .**Subject And Methods**: A descriptive research design was used, study setting were at El-Kharga General hospital in new valley governorate which affiliated to ministry of health. A convenient sample technique of (n70) nurses who working in critical units were included in this study. Two tools were used for collecting data used for collecting data namely; Self-administered questionnaire sheet; team STEPPS Teamwork Perception Questionnaire and Organizational Commitment Questionnaire. **Results**: The study results demonstrate that, nearly three quarter of the study subjects were perceived teamwork, staff nurses were more perceived teamwork by communication and situation monitoring followed by team skills, ended by leadership, as regarding to organizational commitment, about two thirds of staff nurses were committed for their organization, the staff nurses were more committed by feeling of experience followed by Identity Identification, and ended by equity. **Conclusion**: The current study had answered the research question by evidence that, there was a strong positive relationship between nurses' teamwork perception and nurses' organizational commitment, nurses were more perceived teamwork, On other hand, the nurses were more committed for their organization by "feeling experiences" while. **Recommendation:** It is recommended that, Conducting workshops and training programs for managers and supervisors about teamwork and it's important for quality of health care focusing on leadership styles as a method to enhancing overall teamwork.

Key words:teamwork, organizational commitment, critical care units

Introduction

Many claims have been made in recent years by scholars, management consultants, and journalists about the positive benefits of teamwork for organizations. More specifically, teams are said to contribute to better outcomes for business organizations due to improved performance of employees, productivity or organizational responsiveness and flexibility. These benefits are often attributed to the positive impact of teams on employee attitudes such as morale and job satisfaction, as well as commitment to the organization ***(Greenberge, 2012)***.

The word team usually refers to a small group in which the members have a common purpose, interdependent roles and complementary skills ***(Gondal, & Khan, 2008)***. Also team can be defined as a group of persons who are interdependent in their tasks, share the same responsibility as to results, who perceive themselves and perceived as forming a single entity, an

intimate part of a greater social system, and whose relationships hinge upon organizational boundaries ***(Phaneuf, 2009)***.

According to the concept analysis conducted by ***Xyrichisand Ream (2008)***, teamwork can be defined as: A dynamic process involving two or more health professionals with complementary background and skills, sharing common health goals and exercising concerted physical and mental effort in assessing, planning, or evaluating patient care. This is accomplished through interdependent collaboration, open communication and shared decision-making. This in turn generates value-added patient, organizational, and staff outcomes.

Teamwork is currently a topic of interest in healthcare. There is an expectation that the various healthcare disciplines will work together to ensure that all patients and families are receiving optimal care in any health care setting The literature suggests that teamwork among patient care teams can have positive effects on work environment, job satisfaction, and quality of patient care ***(Rochon 2014)***.

Effective teamwork in health-care delivery can have an immediate and positive impact on patient safetythe importance of effective teams in health care is increasing due to factors such as: (i) the increasing complexity and specialization of care; (ii) increasing co-morbidities; (iii) increasing chronic disease; (iv) global workforce

I **Technical design**

Technical design for the study will include research design, setting, subject and tools of data collection.

1- Research design

A descriptive, correlational design was followed in carrying out this study.

The study setting

The study was conducted at the critical care units of El-Kharga general hospital namely; (ER – OR – ICU – NICU – CCU - Dialysis). The hospital affiliated to Ministry of Health (MOH)

Study Subjects

A convenient sample technique of (n70) nurses who working in critical unitswere included in this study out of total(n 87) staff nurses who had at least one year experience in their department which the only inclusion criterion to be involved in this study.

Data collection Tools

Two tools were used for collecting the data of the present study namely; Team STEPPS Teamwork Perception Questionnaire (T-TPQ) and Organizational Commitment Questionnaire (OCQ).

1- **Self-administered questionnaire:** This tool consists of two parts :

First part: was developed by the researcher to collect data related to demographic characteristics of the study subjects as: age, gender, level of education, social status, residence, years of experiences, place of work, and training program they attained.

Second part: Team STEPPS Teamwork questionnaire (T-TPQ) scale :

Was developed by **American institutes for research and quality (2010),** aimed to measuring staff nurses' teamwork perception and some modification such as rephrasing was done by the Researcher, it consists of (58) items under seven main dimensions as the following description:

Scoring system:

Subjects Responses were on 5-point likert scale 1,2,3,4 and 5 for strongly disagreeing, disagree, neutral, agree and strongly agree .The scores of the items were summed up and the total was divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The subjects were considered perceived if the total percent score was more than or equal 70%, while the subject that considered unperceived if the total percent score was less than 70%.

2-Organizational Commitment Questionnaire(OCQ):

This questionnaire developed by **Eisenberger (1986) in Sabry (2011)** aimed to determining the level of organizational commitment for staff nurses', some modification such rephrasing was done by the researcher. It included (45) items, divided under eight dimensions as following description:

Scoring system:

Organizational commitment items were scored 1, 2, 3, 4 and 5 the responses: strongly disagree, disagree, neutral, agree and strongly agree. For each dimension, the scores of the items were summed up and the total was divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The subjects

were considered committed if the total percent score was more than or equal 70%, while it were considered not committed if the percent score was less than 70%.

II- Operational Design:

The operational design for this study included preparatory phase, pilot study and field work.

Preparatory phase

In this phase the researcher reviewed the current available related literature, materials in textbooks, scientific journals, and internet services were used for searching, based on the review the tools of data collection were developed, and then translated into Arabic language. This phase started from August 2014 to March 2015.

Tool validity

By using faces and content validity to determine appropriateness of each item included in tools, the tools were judged by a jury group consists of five experts; two of them were assistant professors of nursing administration at faculty of nursing of Sohag University, one professors and two assistant professors of nursing administration at Assuit University. Their opinions were elicited regarding the tools format, layout, parts, and the clarity of the words of the statements. The necessary modifications and rephrasing were done, this took two month nearly, it started from the beginning of May 2015 and ended by the end of June 2015.

Pilot study

A pilot study was conducted on nine nurses selected randomly from different critical units; these subjects were excluded from the main study subject. They represent 10% of study subjects. The aim of the pilot study was to determine the applicability, the time needed for filling the designated tools, and to test the clarity of study tools language. Data obtained from the pilot study was analyzed, and necessary modifications were done. The time for filling the study tools sheet took about 30-45minutes. The stage took two week. It started from the beginning of July 2015.

Field work

Data were collected throughout the different shifts. The questionnaire sheets were distributed to the participant nurses all over the different shifts who were asked to respond by own self and return back to the researcher for any clarifications. Every nurse took about 30-45 minutes to complete the questionnaire sheet. This time is approximately the same the researcher calculated in pilot study. The stage took three months; it started from November 2015 to the end of January 2016

III- Administrative Design:

An official letter requesting permission to conduct the study was obtained from the Faculty of Nursing Ain Shams University, to obtain permission from the Director of El-Kharga general hospital to collect the data of the study.

Ethical Considerations:

The study protocol was approved by the pertinent ethical committee at the Faculty of Nursing Ain Shams University. Official permissions to conduct the study were secured. Informed consent was obtained from each nurse to participate in the study sample. They were informed about the study aim and about their rights to refuse or withdraw at any time without giving reasons. Confidentiality of the obtained information was ascertained. The study did not entail any harmful effects on participant.

Statistical design:

Date entry and data analysis were done using SPSS version 19 (Statistical Package for Social Science). Data were presented as number, percentage, mean, standard deviation. Chi-square test was used to compare between qualitative variables. An independent sample t-test was used to compare quantitative variables between two groups and ANOVA test was used for more than two groups. Pearson correlation was done to measure correlation between quantitative variables. P-value considered statistically significant when P < 0.05.

Results

Table (1):Demographic characteristics of the study sample (n=70)

	No. (n= 70)	%
Age: (years)		
< 25	**34**	**48.6**
25 -< 30	**18**	**25.7**
30 - < 35	**6**	**8.6**
35+	**12**	**17.1**
Range	**(19-47)**	
Mean ± SD	**29.16 ± 7.87**	
Median	**22**	
Gender:		
Male	**20**	**28.6**
Female	**50**	**71.4**
Level of education:		
Nursing Diploma	**38**	**54.3**
Nursing Institute	**26**	**37.1**
Nursing Bachelor	**6**	**8.6**

Table (1) shows that the range of study sample' age was between 19 and 47 years old and the median was 22 year. More than half of the study samples (54.3%) werehad nursing school diploma.

Table (2): Staff nurses' Perception toward teamwork by dimensions (n=70).

Dimensions	**Perceived**				**Un - perceived**			
	No.	**%**	**Mean ±SD**		**No.**	**%**	**Mean ±SD**	
Team structure	54	77.1	5.09	±1.44	16	22.9	3.86	±1.27
Leadership	41	58.6	4.94	±1.42	29	41.4	3.76	±1.25
Team skills	55	78.6	5.34	±1.48	15	21.4	4.00	±1.29
Team Identity	50	71.4	5.01	±1.47	20	28.6	3.80	±1.28
Situation monitoring	57	81.4	5.6	±1.71	13	18.6	5.16	±1.43
Mutual support	53	75.7	3.38	±1.62	17	24.3	4.03	±1.37
Communication	57	81.4	5.6	±1.71	13	18.6	4.16	±1.43
Total Perception toward teamwork	52	74.3	5.27	±1.55	18	25.7	3.96	±1.33

Table (2) clarify that both situation monitoring and communication had the highest percentage (81.4%) among all dimensions, while the leadership had the lowest percentage (41.4%) among all dimensions.

Table (3): Staff nurses' Organizational commitment by dimensions (n=70).

Commitment Dimensions	Committed			Un-committed		
	No.	%	Mean ± SD	No.	%	Mean ± SD
Feeling of experience	58	82.9	5.91±1.66	12	17.1	4.03±1.37
Identity Identification	51	72.9	5.66±1.52	19	27.1	3.9±1.32
Equity	28	40.0	5.08±1.34	42	60.0	3.6±1.21
Investment	46	65.7	5.54±1.46	24	34.3	3.84±1.29
Trust	39	55.7	5.26±1.39	31	44.3	3.7±1.24
Participation	49	70.0	5.62±1.4	21	30.0	3.88±1.25
Resistance	40	57.1	5.35±1.37	30	42.9	3.74±1.23
Compliance	41	58.6	5.36±1.41	29	41.4	3.75±1.25
Total organizational commitment	48	68.6	5.47±1.44	22	31.4	3.81±1.27

Table (3) clarify that" feeling of experience " was the highest percentage according to max score among different dimensions of organizational commitment with percentage (82.9%) followed by participation with percentage (70.0%), while the lowest percentage were for " Equity " with percentage (60.0%).

Figure (1): Distribution of sample for total staff nurses' teamwork perception.

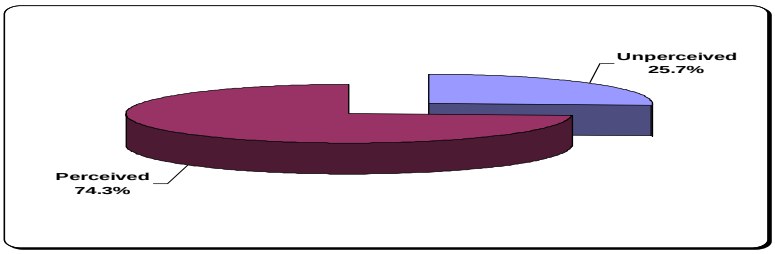

Figure (1): shows that about three quarter of study subjects were totally perceived teamwork, meanwhile, nearly one quarter was totally un-perceived teamwork.

Figure (2): Distribution of sample for total staff nurses' organizational commitment.

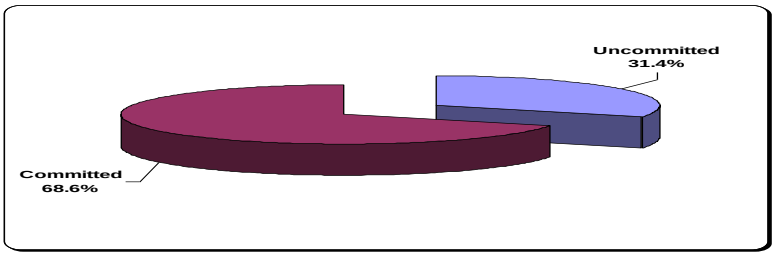

Figure (2):indicates that above two third of nurses (68.6%) were totally committed, while slightly less than one third of nurses (31.4%) were totally un-committed.

Table (2): Correlation between total teamwork and total organizational commitment

R	P-value
0.609	<0.000***

(*)Statistically significant at p < 0.05

Table (4) indicates that there are a strongly positive relation between total nurses' teamwork perception and total nurses' organizational commitment.

Discussion

Research from both management and medicine has consistently advocated effective team-based working as the optimal work method in healthcare settings. This is particularly true in the context of critical care units, where life- threatening and time critical conditions require the synchronized and collaborative actions of different professionals working together as an effective interdisciplinary team, so the important of team working in health care is clearly reflected in recent health care policy ***(Richardson, 2012).***

The Present study aimed to assessing critical care staff nurses' perception toward teamwork, determining the level of critical care staff nurses' commitment toward their organization, and then finding out the relationship between critical care staff nurses' perception toward teamwork and their commitment for the organization.

Concerning demographic characteristics of the study subjects; the results of this study revealed that Most of the study sample were had age ranged from (25< 30) years, female, diploma nurse, married, and had experience less than 5 years. These results were similar with **Saleh (2014)** who studied operating room nurses' and physician' perception toward teamwork, the study revealed that most of the study subject's demographic characteristics were had age ranged from (25<35) years, female, diploma nurse, married, and had experience less than 10 years. Conversely, these findings were in contrary with **Mohammed (2014)** who studied head nurses point of view regarding team building where the study found that most of the subject's demographic characteristics were had age above 40 years and had experience years above 10 years.

Concerning critical care nurses' perception of teamwork, the findings of this study revealed that, the almost of three quarter of nurses were totally perceived toward teamwork, meanwhile, above one quarter were not totally perceived toward teamwork. This answered on the first research question; this finding may be attributable to presence of substantial efforts for effective teamwork, although the importance of teamwork has been widely recognized. Therefore, supervisors and managers may not incorporate teamwork training programs as part of their in-service education efforts for effective teamwork and functioning.

Similar findings were reported by ***Saleh (2014)*** who found that the majority of the study subjects were perceived toward teamwork. On the same line, the results were supported by ***Kalisch et al (2010)*** who

studied Nursing staff teamwork and job satisfaction and found that higher level of nurse's teamwork. Also, these findings were in agreement with ***Mohammed (2010)*** who studied the utilization of team building strategies among the faculty member at faculty of nursing –Zagazig University, the author showed that, the highest percentages score of the utilization of team building strategies (cooperation, contribution, communication, and commitment) as regarding to opinions of the faculty members, with statistically significant differences in the utilization of the strategies.

Furthermore, the results were in harmony with ***Hwange*** and ***Jeonghoon (2015)*** who studied the nurse's perception toward teamwork, the author found that above three quarter of the study subject were perceived teamwork.

These result in contrary with ***Mohammed (2014)*** who found that the majority of the study subjects had poor level of awareness toward team building. On the same line, the result was unsupported by ***Ajejgbe (2012)*** conducted study "nurse-physician teamwork in the emergency department" and he mentioned that intensive care staff nurses were not in itself a 'team' and is not sufficient to enable an effective teamwork and communication. Members of ICU teams require a whole host of non-technical skills if they are to operate as a cohesive at coordinated unit, and in turn, enhance patient safety. However, such skills are frequently neglected during professional training leading to suboptimal team work and poor patient outcomes.

Moreover, the results were not similar with ***Makary et al (2006)*** who studied the operating room teamwork among nurses and physicians: teamwork in the eye of the beholder, the author showed that overall, the nurses had lower perception of nurses – physicians' teamwork with no significant differences, he also stated that the nurses' leadership, communication, satisfaction, timelines of communication, and collaboration with department showed no significant differences.

Regarding teamwork sub-scale dimensions, the present study findings revealed that communication and situation monitoring had got the highest score among deferent teamwork sub-scale dimensions which were above four fifth of the total study subjects . This result may be dueto continuous training on communication skills program, where the most of the study subject had got training program on communication skills.

These findings came in accordance with the study' conducted by ***Bruning&Bagharest (2013)***who studied the relationship between teamwork and empowerment, the other's study revealed that communication skills were high among study sample' study. On the same line, the results were supported by ***Mohammed (2014)*** who found that the highest percentages of head nurses' awareness in Ain shams university hospital were related to the relationship between the members of team. Furthermore, the results of the study were in agreement with ***Brunetto (2012)*** who found that supervisor-nurse relationships affect nurses' perceptions of teamwork, patient role ambiguity and wellbeing. These findings were in contrary with study done by ***Saleh (2014)***who showed that communication was the third score dimension in deferent dimensions of teamwork perception scale among nurses and physicians.

The second variables was investigated in the present study was staff nurses' organizational commitment, the present study revealed that nearly tow third of the studied subjects were totally committed to their organization. This answered on the second research question, this could be due to acceptance of, the organization's goals and values; a readiness to put the effort necessary on behalf of the organization; and the

willingness to remain part of the organization.

Similar findings were found in the study conducted by ***Mostafa (2011)*** who study the relationship between organizational commitment, organizational climate , and job satisfaction among Nursing faculty members at Zagazig University, the author stated that highest level of organizational commitment were found in the study. Also, the result were supported by ***El-Bardeny (2009)*** who studied the organizational climate versus organizational commitment among nurses working in Tanta University hospital and he noticed that more than two- thirds of nurse leaders and staff nurses had moderate committed to their organization with percentages (70.8%),(66.8%) respectively.

On the same line, the result was in harmony with ***Sabry (2011),*** who studied the quality of work life and organizational commitment at El-Galal Military hospital in Cairo City, the author found that the majority of the studied subjects had highly committed to their organization with percentage (90.0%). Furthermore, the results was in agreement with ***Abu-Elela(2009)*** in ***Mostafa (2014)***, who stated that the level of nurse' educators organizational commitment were high.

Conversely, the results unsupported by **Mohammed (2015),** who study the relationship between empowerment and organizational commitment among nurse teachers at secondary nursing school in El-Fayoum government, the author found that almost two-thirds of the studied subjects were totally not committed to their organization with percentage (64.0%).

Regarding organizational commitment sub-scale dimensions, "Feeling of experience" was rated as the highest percentage among different dimensions with percentage (82.9%). This result may be due to their feeling with happy during the working in their hospital and willing to do more effort to succeed their hospital. Similar findings were matched with ***Mohammed (2015),*** who stated that affective commitment was rated as the highest dimension followed by continuous commitment. On the same line, the results came in agreement with ***Sabry (2011),*** who stated that " Feeling of experience" was the highest dimension according to max score with percentage (92.9%).

Furthermore, the results were supported by ***Abu-El-Hassan (2004),*** who studied the influence of head nurses' leadership behavior on staff nurses' organizational commitment at El-Manial University Hospital, the author found that dimension " Feeling of experience" was rated as the second dimension that nurses were committed Conversely, the results were in disagreement with ***El Shaer (2002)*** who found that "Feeling of experience " had low mean score among different dimension of organizational commitment.

Conclusion

Based on the study findings, it can be concluded that There was a strong positive relationship between nurses' teamwork perception and nurses' organizational commitment, nurses were more perceived teamwork by "communication" and "situation monitoring" while, they had the lowest scores in "leadership", with significantly statistics differences by gender. On other hand, the nurses were more committed for their organization by "feeling experiences" while, they less committed by "equity" with significantly statistics differences by level of education and years of experience.

Recommendations

Based on the main study findings, the following recommendations were required:

1) For nurses' teamwork

a) Educational

- The concept and importance of teamwork should be included into a continuous educational program for administrators, supervisors, and nurses.
- Leadership styles should be integrated into the educational programs.

b) Practical

- Periodical monitoring and evaluation of nurses' teamwork and putting sets of strategies for implementation.
- Conducting a site assessment is required to identify barriers to implementation and identify common practice problems and issues related to ineffective teamwork.

c) Researches

-Further studies are recommended to assess:

- The impact of nurses' and physician teamwork on patient safety.
- The impact of nurses' teamwork on nurses' job satisfaction.

2) For NURSES' COMMITMENT

a) Educational

- Organizational commitment approachesshould be incorporated into educational programs to promote the awareness about the importance of organizational commitment.

b) Practical

- Administrators and supervisors should care about organizational commitment focusing on investment and equity of the nurses.
- Investment and equity methods and tools for achievement should be in the mind and eyes of administrators and executive personnel to assure their employees' commitment to their organization
- Improving and increasing the efforts for organizational commitment through conducting workshops and meetings with nurses to determine the areas of nurses' unsatisfactory then seeking for strategies that enhance and motivate the work environment.

c) Researches

- Further studies are recommended to assess:

- The effect of nurses' organizational commitment on nurses' turnover.
- The effect of nurses' organizational commitment on nurses' stress.

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