Effect of Organizational Synergies System on Staff Nurses' Performance and Patients' Satisfaction

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Abstract

Background: Organization synergy system is a new language based on respect, diversity, boundaries and communication. Aim: This study aimed to investigate the effect of organizational synergies system on Staff Nurses' performance and patients' satisfaction. Study design: A quasi-experimental research design was used to conduct this research. Setting: The study was conducted in (CCU) at El Orman Hospital at Assiut University Hospitals. Subject: Convenience sample of Staff Nurse (N= 12) working in (CCU) at El Orman Hospital and this study was consisted of 60 patients. Methods: The data were collected using: Organizational Synergies System Scale was used and contained two parts: Part (I): As regard to nurses include the Personal data, and Nursing Competency Scale and Part (II) as regard to patient included Socio- demographic data and Patient Satisfaction assessment tool. Results: The study revealed that head nurses had unsatisfactory knowledge level in preprogram assessment but satisfactory in post program implementation (66.7%) with statistical significant relation. and the highest percentages of patient satisfactory about nurses communication & nurses' skills and competences. Conclusion: There was positive correlation between nurse's knowledge and total performance categories. Recommendation: Further training about organizational synergies system for all nurses working at other intensive care units.

Key wards: Organizational synergies system, Nurses' Performance and Patients' Satisfaction

Introduction

The excellence in care is provided through meaningful therapeutic relationships with patients and their families, continuity in care is a core element of care (**William, et al. 2017).** In support of fostering therapeutic patient/family-nurse relationships, the Clinical Nurse Leaders and Staff Nurses work together to build continuity in nursing care over the patient's illness trajectory by assigning a limited number of nurses to the patient/family, As colleagues, more experienced nurses mentor less experienced nurses, Since the needs of patients vary across the system, The varying number of staff nurses and Advanced Practice Nurses who provide varying levels of expertise on each unit to best accommodate patient needs (**Viejo et al ., 2018)**

Synergies are the benefit that results when two or more agents work together to achieve something either one couldn't have achieved on its own. It's the concept of the whole being greater than the sum of its parts. Synergies may be created between management teams, resulting in increased capacity and workflow that was not possible when the teams were working independently **(Paul, 2012).** The organizational synergies system can facilitate the evolution of a common language for nurses in identifying and communicating the needs of patients. It provides a viable means for delineating the role of professional nurses in directly impacting the outcomes of patients and ultimately the overall success of health care organizations **(Reed, et al., 2016)**.

Organizational synergies a framework that clears relationship of nurses with patient, other nurses with other care team. This system makes a common language for nurses in order to define and makes relationship between patients' needs. This is a perfect framework for organizing function of taking care of the patient in the line of health care system **(Barbosa et al., 2012).**

Johannes, (2017) reported that, A synergistic relationship is formed by the enablers and mechanisms of synergy. The

enablers of a synergistic interaction are the necessary precursors that facilitate the emergence of new capabilities**.** Organizational Synergy occurs when people and processes merge seamlessly to continuously expand the ability of the organization to deliver products and services to its customers, while maintaining competitiveness.

American Association of Care Nursing (AACN), (2014) showed the following factors of nurses' performance regarding Organizational Synergy System of Concern to Patients, Clinical Units. Nursing care reflects an integration of knowledge, skills, experience, and attitudes needed to meet the needs of patients and families. Clinical Judgment: is the clinical reasoning, which includes clinical decision-making, critical thinking, and a global grasp of the situation, coupled with nursing skills acquired through a process of integrating formal and informal experiential knowledge and evidence-based guidelines. Advocacy and Moral Agency: is the working on another's behalf and representing the concerns of the patient/family and nursing staff; serving as a moral agent in identifying and helping to resolve ethical and clinical concerns within and outside the clinical setting. Caring Practices: are the nursing activities that create a compassionate, supportive and therapeutic environment for patients and staff, with the aim of promoting comfort and healing and preventing unnecessary suffering. Includes, but is not limited to, vigilance, engagement, and responsiveness of caregivers, including family and healthcare personnel. Collaboration: is the working with others (e.g., patients, families, healthcare providers) in a way that promotes/encourages each person's contributions toward achieving optimal/realistic patient/family goals. It involves intra and inters disciplinary work with colleagues and community.

Systems thinking: is the body of knowledge and tools that allow the nurse to manage whatever environmental and system resources exists for the patient/family and staff, within or across healthcare and non-healthcare systems. Response to Diversity: is the sensitivity to recognize, appreciate and

incorporate differences into the provision of care. Differences may include, but are not limited to, cultural differences, spiritual beliefs, gender, race, ethnicity, lifestyle, socioeconomic status, age, and values. Facilitation of Learning: is the ability to facilitate taught for patients/families, staff nurses, other members of the healthcare team, and community. It includes both formal and informal facilitation of learning. Clinical Inquiry (Innovator/Evaluator): is the ongoing process of questioning and evaluating practice and providing informed practice. Creating practice changes through research utilization and experiential learning **(AACN, 2014)**

Feedback is an extremely important communication tool in business performance management. One of the most effective ways of doing things is constructive feedback, but all feedback calls for giving and receiving information, so if head nurses evaluate their staff performance and not provide continuous feedback the benefit of evaluation doesn't happen **(Cziraki, 2016).** The performance feedback is an ongoing process between head nurses and her/his staff nurses. The exchange of information involves both performance expectations (what is expected from staff nurses to do according to the standard) and performance exhibition (what is actually done by staff nurses). Constructive feedback can praise good performance or correct poor performance and should always be tied to performance standards. Getting the facts, then having a face-to-face conversation can provide direction to help in solving performance problems **(Dana, 2017).**

Good development of the staff is considered as an effective manner in changing an employee's work behavior. It improves employee's job satisfaction. On the other hand, is very necessary for understanding any difficulties in performance standards and improve performance under some conditions. However, in other conditions, may not affect performance or even prove harmful to performance if it is not based on clearly defined criteria **(Islam & Rashad, 2017).** Performance criteria need to be clear, explained, connected with the work tasks tried by employees, and able to be done. Nurse Manager trained to given regular, meaningful

and constructive feedback. Employees should also be provided with appropriate training and development opportunities to overcome staff weaknesses of performance which are identified through the appraisal process. The evaluation of individual employee performance also needs to focus on evaluating employee behavior and work performance not on the personality features of the employee to increase the satisfaction of patients toward the staff performance **(O'Brien, & O'Donnell, 2017).**

Patient satisfaction is the extent to which patients are happy with healthcare. A measure of care quality, patient satisfaction gives providers insights into various aspects of medicine, including the effectiveness of care and level of empathy (**Wikipedia, 2016**). Improving the patient experience can seem like a moving target influenced by a variety of factors. For one, despite the fact that healthcare organizations have been talking about and focusing on patient experience and patient satisfaction for a long time, universally accepted definitions don't exist. For example, patient satisfaction survey vendors use contrasting language, leading to varying patient interpretations. The agency also lacks conclusive research that proves the connections between patient satisfaction and outcomes. And with so many resources focused on improving patient satisfaction, no surprise healthcare leaders want to understand the connection (**Bickmore, & Merkley, 2018)**.

The patients expect more and more of healthcare providers and demand higher and higher standards of care and service. Patient satisfaction has become a frequently used outcome measure of the quality of healthcare delivery. In that sense, satisfaction represents a positive appraisal of provided healthcare with respect to the client's goals and expectations **(Vuković, 2012)**. On the other hand, healthcare worker job satisfaction is a very important parameter that influences productivity as well as quality of work. This complex phenomenon is an attitude towards one's job that has an impact not only on motivation, but also on

career, health and relations with co-workers **(Sahlsten et al., 2015)**.

Significance of the study:

While the researcher review of the literatures found that there were a lot of internationally studies published in professional articles and journals, there show the important from application of system in coordination with the nurses' abilities and talents and providing maximum care is improving by coordination between patients' characteristics (needs) and nurses' features (competencies). the first one titled by "From Theory to Practice Synergy " done by **(Curley, 2014)** the second one titled by "Implementing synergy in a multi-hospital system" studied by **(Cox, et al, 2017)** and lastly the third one titled by "Examining the nurses performance quality and patients satisfaction in intensive care units". **(GhamariZare, et al, 2018)** and other studies also emphasize that successful interaction of nurse and patient needs spending time as literature of **(Sahlsten et al., 2015)**. There is No national studies dealing with the organizational synergies system and It was noticed that there were no studies done in Upper Egypt about this topic, so that the researcher motive to study the effect of organizational synergies system on Nurses performance and patients satisfaction at (CCU) at Assiut University Hospitals.

Aim of the study:

The aim of the study was to investigate the effect of organizational synergies system on staff nurses' performance and patient's satisfaction.

The research hypotheses:

Are formulated training program will improve staff nurse's knowledge and performance regarding organizational synergies system and there are positive effects on Nurses' performance and patient's satisfaction.

Subjects and Methods

A quasi-experimental design was utilized for the current study. This study was conducted in (CCU) at El Orman Hospital at Assiut University Hospital. A convenient sample of

staff nurses working at (CCU) (N= 12) and 60 critical ill adult patients who are alert and admitted to coronary care unit (CCU). The implementation of the training program carried out in class studying room at El Orman Hospital at Assuit University.

Data collection tools:

The data were collected using Organizational Synergies system scale: It contains two parts:

Part (I): As regard to nurses:

1- **Personal data** which include:, educational level, age, material status

2- **Nursing Competency Scale:** This tool was developed by **(AACN, 2014).** Nurses knowledge open end questions administered & translate by the researcher to the nurses for answering all its components. It consists of 38 items, classified into eight categories, namely: advocacy and moral agency (5 items), caring practice (5 items), clinical judgment (5 items), clinical inquiry (5 items), collaboration (3 items), facilitation of learning (4 items), response to diversity (6 items) and systems thinking (5 items). Questions answered by yes, scored one and questions answered by no scored zero.

Part (II) as regard to patient:

This tool was developed by the researcher based on reviewing of the relevant literature **(Ahmed, 2014)** which includes two tools as the following:

1- **Socio- demographic data:** It includes age, sex, level of education, and marital status.

2- **Patient Satisfaction Assessment Tool:** It measured patients' satisfaction about nursing care competency according to organizational synergies system. It consists of 23 items classified into three categories as: needs and expectation (8 items), nurses' communication (10 items) & nurse's skills and competences (10 items classified into 3 points for before, 4 points during & 3 points after procedures done).participants responses based on 5 points Likert scale ranging from (5) very satisfaction, satisfaction (4), moderate (3), mild (2) and low (1).

Study procedures:

Face validity was done to assure accurate comprehension of the study tool. That was done through a jury expert opinions(composed of 5 professors from the Nursing Administration and Critical and emergency Nursing Departments, Faculty of Nursing, Assuit University. Also, content validity was checked and analyzed using confirmatory factor analysis test to assure)importance, clearness, and accountability of each items of the study tool) and its result was ≤ 1.8 for all items of the study tool (Organizational Synergies Scale), so all items in the study tool items was confirmed. The pilot study was done to estimate the time needed to fill the questionnaire form (each questionnaire took from 20-30 minutes). The pilot study serves to test the feasibility, clarity, and practicability of the data collection tool. It carries out on 10% nurses from (Strok ICU) in Neurological Hospital at Assiut Univesity Hospitals. The pilot study collected in January 2017. Data collected from the pilot study were analyzed to test consistency of study tool using Cronbach's Alpha Coefficient test. The result was $\alpha \geq 0.80.6$ for each item of organizational synergy system tool. The staff nurses included in the pilot study were excluded from the present study. Necessary modifications were done after the pilot study. This period took about 3 days.

Field Work:

An official permission obtained from the hospital director, the nursing service administration director, and the head of each department before embarking on the data collection. Ethical Considerations :Research proposal approved from Ethical Committee at the Faculty of Nursing, Assiut University. There is no risk for study participants during application of the research.The study follows common ethical principles in clinical research.Oral agreement taken from the participants in this study .Study participants have the right to refuse or to participate and/or withdraw from the study without any rational at any time.Confidentiality and anonymity assured.Study participants privacy considered collection of data.

The actual data collection started in the end of February, 2017 and ended collected total

sample at May 2017 to educate the participants through training program about Organizational Synergies. There were evaluated daily during the three shifts using the assessment sheet to investigate the effect of Organizational Synergies to the intervention group which the effectiveness of the program on nurses knowledge and performance. The time spent with each Nurse was from 20-30 minutes. The researchers met the nurse's, explaining to them the purpose of the study, and asking them for their oral consent to participate. The program was implemented by the researcher within two weeks period. The total time of the program four days was 16 hours distributed to 8 sessions for each group, 2 sessions every day (start from 9 am the attendance time to 1 pm the leave time) thus all session were implemented in accordance with the working time of the participants. In the first session the researcher explained the aim of the study, program objectives, contents and time table.at the beginning of each session, the objectives of the sessions were explained. Daily feedback was done about the previous session and at the end of each session there was a summary about the current session. The researcher used some teaching strategies in the program implementation were: lecture, brainstorming, small group discussion, think peer share, fishbowl and role-play and used teaching aids as**:** power point presentation, flip charts, posters, drawing for illustrations and video presentation. Comparison was done between before & after program implementation. After ended of the training program distributed of the handouts for all participants and certificates for participants.

There were some Limitation facing the researcher during the period of data collection, it includes following point: Number of nurses working with patient was inadequate for patient care. Lack of nurses knowledge; nurses' exhaustion, prolonged working hours and most of them had diploma (school nursing education had not Bachelor degree in nursing.

Collected data were verified before computerized data entry and analysis by using statistical software package for social sciences (SPSS) v.g 20 program. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, means and standard deviations for quantitative variables. Quantitative variables were compared using the chi-square test, paired t-test, Pearson correlation matrix and (ANOVA test) were used, and statistical significance was considered at P-value ≤ 0.05.

Results

Table (1): Distribution of Personal data of the studied staff nurses

| Personal data	No. (n= 12)	%
Age: (years)		
Mean ± SD	25.75 ± 3.14	
Range	22.0 – 32.0	
Marital status:		
Single	3	25
Married	9	75
Educational Qualification:		
Nursing Diploma	11	91.7
Nursing Technical Institute	1	8.3

Independent samples t-test

This table shows that, the age of staff nurses their range from 22.0 -32.0 with mean of 25.75 ± 3.14. 75% of them were married and 91.7% had diploma degree.
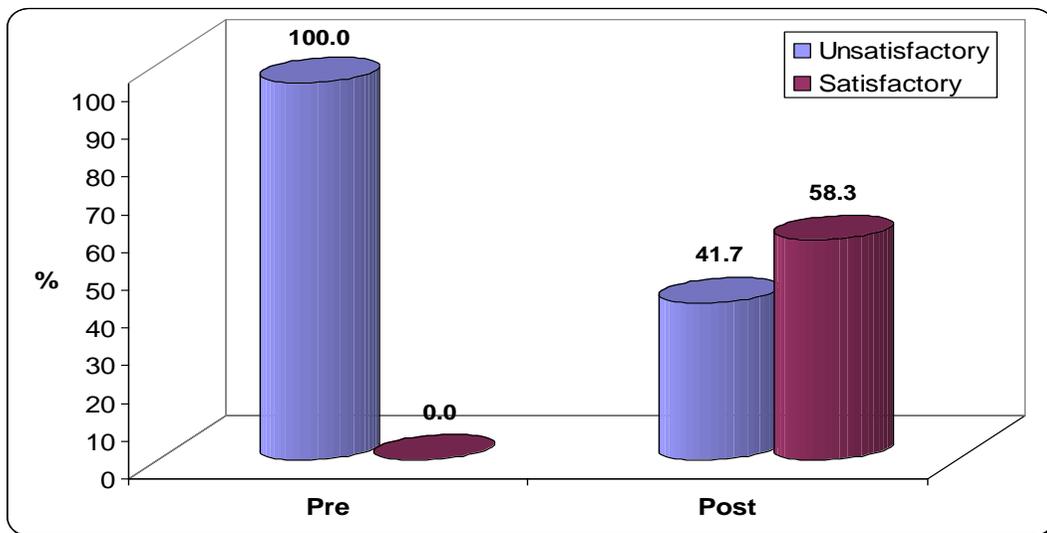
(≥ 60% satisfactory, < 60% unsatisfactory)

Figure (1): Distribution of staff Nurses' Performance regarding organizational synergies system Items

Reveals that all Nurses had unsatisfactory performance level regarding organizational synergies in preprogram assessment 100% percentage and satisfactory performance level in post 58.3 % percentage
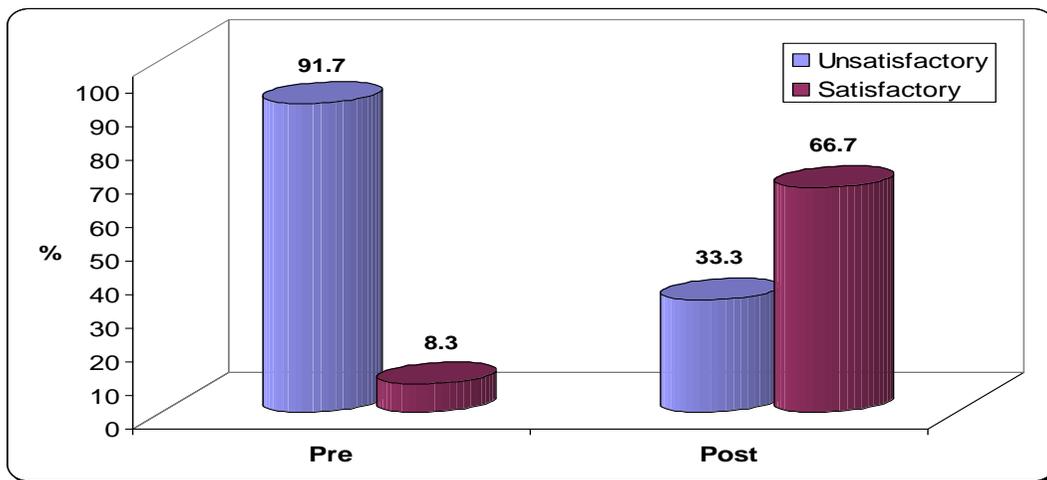
(≥ 60% satisfactory, < 60% unsatisfactory)

Figure (2): Distribution of staff Nurses' knowledge regarding organizational synergies system Items

Reveals that all Nurses had unsatisfactory knowledge level regarding organizational synergies in preprogram assessment 91.7% and satisfactory knowledge level in post 66.7%.

Figure (3): Correlation between performance & Knowledge as regarding organizational synergies items as perceived by the studied staff Nurses Preprogram implementation.

Showed that, there was a positive correlation between performance & Knowledge as regarding organizational synergies items and there were statistical significance differences between them R = 0.808 & P ≤ 0.001*.
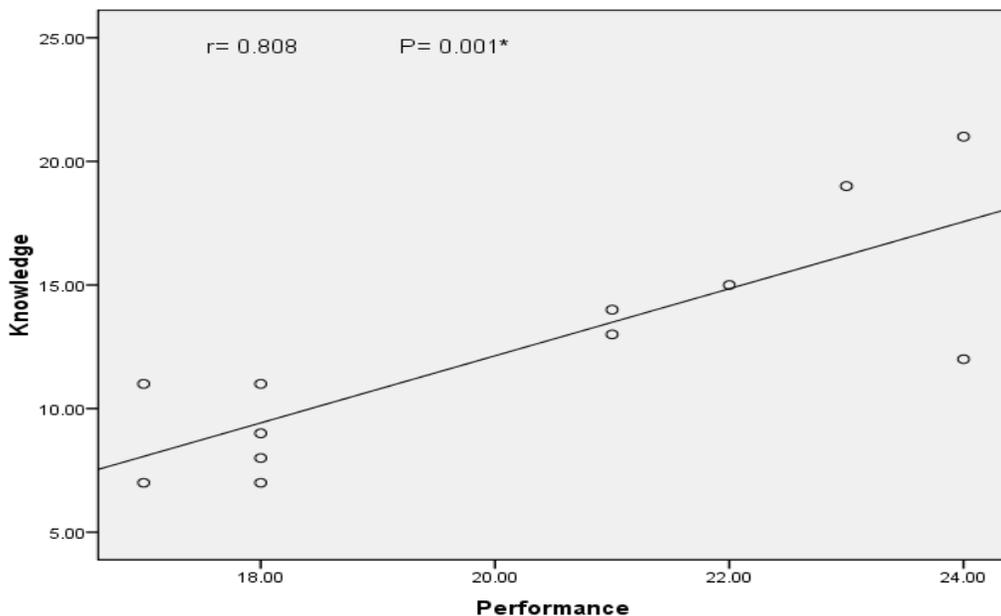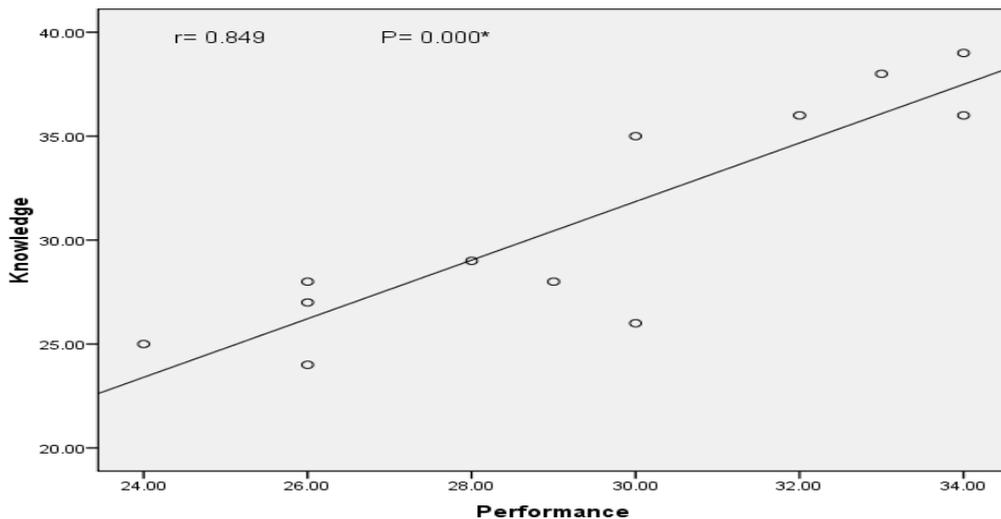

Figure (4): Correlation between performance & Knowledge as regarding organizational synergies items as perceived by the studied staff Nurses post program implementation.

Shows that, there was a highly positive correlation between performance & Knowledge as regarding organizational synergies items and there were highly statistical significance differences between them R= 0.849 & P ≤ 0.000*.

Table (2): Distribution of socio-demographic data of the studied patients (N= 60)

Socio-demographic data	No.	%
Age:		
< 50 years	16	26.7
50 - 55 years	12	20
> 55 years	32	53.3
Mean ± SD	52.37 ± 8.14	
Sex:		
Male	40	66.7
Female	20	33.3
Educational level:		
University	36	60
Secondary	9	15
Primary	9	15
Illiterate	6	10
Marital status:		
Single	12	20
Married	24	40
Divorced	12	20
Widow	12	20

Independent samples t-test　　　　　　　Chi-square test

This table shows that, the highest percentage of the studied patients were older than 55 years old, male, have a university level of education and married 53.3%, 66.7%, 60% & 40% respectively.

Table (3): Distribution of Patients' satisfaction level as regards their needs and expectation

Variables	Low		Mild		Moderate		Satisfied		Very satisfied	
	No.	%	No.	%	No.	%	No.	%	No.	%
1-The nurse checks patient's ID.	0	0.0	0	0.0	0	0.0	**60**	**100.0**	0	0.0
2-The nurse maintains the patient's rights.	22	36.7	0	0.0	**36**	**60.0**	2	3.3	0	0.0
3-The nurse promotes patient's self-esteem.	0	0.0	2	3.3	12	20.0	**42**	**70.0**	4	6.7
4-The nurse promotes patient's self-image.	0	0.0	2	3.3	6	10.0	**48**	**80.0**	4	6.7
5-The nurse provides health education.	0	0.0	4	6.7	**54**	**90.0**	2	3.3	0	0.0
6-The nurse monitors safety& security.	2	3.3	12	20.0	14	23.3	**30**	**50.0**	2	3.3
7-she provides clean & quite environment.	8	13.3	10	16.7	4	6.7	**36**	**60.0**	2	3.3
8-The nurse takes defective equipment from the patient's environment& reporting the defect.	0	0.0	6	10.0	0	0.0	**54**	**90.0**	0	0.0

• Independent samples t-test　　　　　　　Chi-square test

This table reveals that, the high percent of the studied patients were satisfied for all variables as regard needs and expectation 70.0%, 80.0%, 50.0%, 60.0% & 90.0% respectively except maintains the patient's rights and provides health education items were moderate satisfied reported more than half percentage by the studied patients 60.0% & 90.0% respectively.

Table (4): Distribution of Patients' satisfaction level as regards nurses' communication

Variables	Low		Mild		Moderate		Satisfied		Very satisfied	
	No.	%	No.	%	No.	%	No.	%	No.	%
1-Asks about the patient condition frequently.	0	0.0	0	0.0	2	3.3	**30**	**50.0**	28	46.7
2- Listen to the patient complaining carefully.	0	0.0	0	0.0	18	30.0	**24**	**40.0**	18	30.0
3-Gives the patient chance for asking questions.	0	0.0	6	10.0	10	16.7	**30**	**50.0**	14	23.3
4-The nurse answer all the patients questions.	0	0.0	4	6.7	20	33.3	**26**	**43.3**	10	16.7
5-Explains the procedures to the patient before done.	0	0.0	4	6.7	20	33.3	**22**	**36.7**	14	23.3
6-Discuss the conditions & treatment plan.	0	0.0	0	0.0	14	23.3	22	36.7	**24**	**40.0**
7-The nurse communicative with the patients purposefully & therapeutically.	0	0.0	0	0.0	0	0.0	2	6.7	**58**	**93.3**
8- Participation the patients in decision making.	0	0.0	0	0.0	5	16.7	**14**	**46.7**	11	36.7
9-Communication with a clear tone of voice.	0	0.0	0	0.0	26	43.3	**30**	**50.0**	4	6.7
10-Respond for the patients calling immediately.	0	0.0	2	3.3	0	0.0	6	10.0	**52**	**86.7**

Independent samples t-test   Chi-square test

This table reveals that, the highest percentage of the studied patients were satisfied as regards all items of nurse' communication except three items more than half of the study subject reported that very satisfied 86.7% & 93.3% respectively.

Table (5): Distribution of Patient satisfaction level as regards nurse's skills and competences

Variables	Low		Mild		Moderate		Satisfied		Very satisfied	
	No.	%	No.	%	No.	%	No.	%	No.	%
Before the procedure:										
1-Wash hands before the procedure.	0	0.0	0	0.0	8	13.3	**52**	**86.7**	0	0.0
2-The nurse prepares all needed equipment.	6	10.0	2	3.3	2	3.3	**34**	**56.7**	16	26.7
3-The nurse maintains patients privacy	8	13.3	8	13.3	0	0.0	**42**	**70.0**	2	3.3
4-Explains the purpose of the procedure.	0	0.0	0	0.0	6	10.0	**40**	**66.7**	14	23.3
During the procedure:										
1- The nurse has self-confidence.	8	13.3	14	23.4	0	0.0	**36**	**60.0**	2	3.3
2-Performs the nursing procedures skillful	0	0.0	20	33.4	8	13.3	**32**	**53.3**	0	0.0
3-The nurse understands what she offers.	0	0.0	18	30.0	10	16.7	**32**	**53.3**	0	0.0
After the procedure:										
1-Provides conclusion & feedback.	0	0.0	0	0.0	0	0.0	**60**	**100.0**	0	0.0
2-Documents the patient's conditions.	0	0.0	0	0.0	8	13.3	**44**	**73.3**	8	13.3
3-Wash hands after the procedures.	0	0.0	0	0.0	0	0.0	**42**	**70.0**	18	30.0

Independent samples t-test   Chi-square test

This table reveals that, the highest percentage of the studied patients was satisfied as regards all variables of nurse's skills and competences.

Discussion:

The Organizational Synergies System used in a variety of circumstances and for a variety of purposes as regard patient care and uses in staff development (**Kohr et al., 2013**) and building a nursing productivity measure, (**Khalifehzadeh et al. ,2012**). The current study revealed that the majority of the patients were in the age group 55and 60 year. Also as regard the gender the majority of the patients were males in study subject. The reseats supported by the study of (**Melek, 2015**) who found that, most MI occur in people over 55, and become more common with increasing age. American association of care staff nurses (AACN) synergy for patient care has become widely accepted as an available system for professional nursing in the 21st century (**Kaplow, et al, 2005**). Organizational Synergies System lies in

simplicity: It identifies the patient as the center focus, describing the patients need and the skills required of the nurse to best meet those needs **(Hardin, 2007).**

The current study revealed that the majority of staff nurses was single, aging between 22 - 32 years, graduated from diploma (school nursing education), married, and had diploma degree. This result agrees with **Mohamed, (2010)** who reported that, the most of studied staff nurses have diploma school of nursing.

As regard nurse knowledge about **advocacy and moral agency,** the current study showed that significance difference between nurse knowledge in pre and posttest in training program in advocacy and moral agency, this findings consistence with the study done by **(Rivet, 2012)** who mentioned that rewarding system and prolonged working hours it is essential to provide frequent education on infrequently performed protocols to ensure staff competence and comfort, as well as patient safety and rights.

As regard nurse knowledge about **caring practice,** the current study showed that significance difference between nurse knowledge in pre and posttest in training program in caring practice this is agree with the study done by **(Hardin & Kaplow, 2005)** who showed that, the work of nurse by Organizational Synergies System framework and leads to the ability to capitalize on individual strengths of staff nurses required by the patient it has been established had nursing practice based on levels of expertise.

As regard nurse knowledge about **clinical judgment,** the current study showed that highly significance difference between nurse knowledge in pre and posttest in training program according to policy in critical care (0.000*) this is agree with the study done by **(Hardin & Kaplow,2005)** who revealed that, Organizational Synergies System is extremely effective in articulating the important role that professional nursing plays in the health care system and when facilitated by the organization standard defines the impact professional nursing can have not only on patient outcomes.

As regard nurse knowledge about **clinical inquiry**, the current study showed that significance difference between nurse knowledge in pre and posttest in training program according to body system, monitoring and intervention this is agree with the study done by **(Hardin & Kaplow, 2005)** who found that, the clinical begins with the anatomy, physiology, and assessment involved with particular body system and go on to cover monitoring and intervention for patient in coronary care unit.

As regard nurse knowledge about **collaboration**, the current study showed that significance difference between nurse knowledge in pre and posttest in training program, this is agree with study done by **(Leske, 2012)** who reported that, the early relation work between the nurse, family and health team system will facilitate communication throughout the patients critical illness

As regard nurse knowledge about **facilitator of learning,** the current study showed that significance difference between nurse knowledge in pre and posttest in training program this is in inconsistence with study done by **(Gamal, 2005)** who showed that the highest knowledge score was found in those who having baccalaureate degree in nursing science. On the other hand **(Hassan & Aboulazm, 2007)** who show that highest knowledge scores was found among staff nurses having baccalaureate degree in nursing. This finding agreed with **(Ali, 2010)** who stated that, the technical institute staff nurses had significantly higher score than those who have baccalaureate degree of nursing, or those who have nursing diploma regarding infection control.

As regard nurse knowledge about **response diversity,** the current study showed that significance difference between nurse knowledge in pre and posttest in training program according to evaluate the patient condition, made nursing care plan this is disagree with study done by **(Hardin, 2016)** who stated that, the staff nurses can identify both subjective and objective data needed to choose evidence-based interventions for the patient can use in developing a plan of care.

As regard nurse knowledge about **system thinking** the current study show that significance difference between nurse knowledge in pre and posttest in training program according to help patient family to improve patient condition, security patient and family this is disagree with the study done by **(Berwick & Kotagal, 2004)** show that family presence during procedure is now being advocated. Family member can provide the spiritual and emotional support to patients in an unfamiliar situation, and they can help give meaning and understanding of the experience of illness for the patient. Allowing the patient to control visiting hours is imperative to a healing environment.

Regarding staff nurses knowledge and performance an about staff nurses in coronary care unit it was found that knowledge from studied staff nurses had knowledge in pretest but they improved it was found that 58% in post. This is agree with **(Mohamed, 2001)** who found that participants had poor knowledge before training program. In this line (**Michael et al., 2014)** stated that, careful skin preparation is worth the extra minutes because of the time saved in responding to false reading. Among other factors attributed to lack of staff nurses knowledge; staff nurses' exhaustion, prolonged working hours and lack of incentives. This is supported by **(Emam, et al., 2004 & American Association of Critical Nursing, 2016)** stated that among factors contributed to lack of staff nurses knowledge is loss of enthusiasm due to lack of rewarding system and prolonged working hours. However **Rivet, (2012)** mentioned that, the essential to provide frequent education on infrequently performed protocols to ensure staff competence and comfort, as well as patient safety.

Concerning the unsatisfactory staff nurses' knowledge in pretest study results, this finding is agree with **Teleb, (2001)** who found unsatisfactory knowledge level of staff nurses regarding teaching program about myocardial infarction (MI) before program implementation. And with **Laxmi, (2002)** who stated that staff nurses need to be given special training in caring the cardiac patients in ordered to improve their knowledge. Also it was consistent with the finding of **Washburn, et al. (2005)** who mentioned that staff nurses were not knowledgeable before participating in an education and communication intervention. This finding agreed with **Willette, et al., (2007)** who stated that staff nurses had unsatisfactory knowledge and they not adequately prepared to educate patients with heart failure about self-management.

From the above results this study shows that the teaching program had great effect in improving the staff nurses' knowledge regarding cardiovascular disease. These improvements were shown at all ages, educational levels, experiences, and among staff and head staff nurses this was proven by the difference between pre and posttests. This relates to the clarity of the material, using simple language and also high receptivity of the staff nurses, their interest, need to acquire knowledge and increase self-confidence. This finding was supported by **Sekar, (2002)** who found that a structured teaching program was effective in improving the knowledge of cardiac staff nurses.

In agreement with **Emam, et al. (2004)** who reported that, the educational development has a good effect on improving the staff nurses' knowledge and performance. It was consistent with **Albert, (2008)** who stated that staff nurses' knowledge would increase after attending educational programs. In line with **(Westfall, 2011)** who stated that in-service education programs are an effective method for inducing behavioral changes in staff nurses working in long-term care settings. These changes can improve the staff nurses' ability to monitor and promote safe and efficacious drug therapy in long-term care facilities. Also **(Fowler, 2012)** who mentioned that education should target staff nurses' knowledge deficits and new knowledge of treatment and trends.

Educations in health care today, both patient education and nursing staff education is a topic of the most interest in every setting in which staff nurses practice. Teaching is major aspects of nurse's professional role. There is a belief on the part of staff nurses and other healthcare providers, which is supported by research, that patient education improves compliance and, hence, health and well-being. Better understanding by clients of their treatment plans can lead to increased

cooperation with therapeutic regimens (**Carpenter & Bell, 2002**). Education is the essential bridge for achieving quality and safety improvement in health care. Because staff nurses are primary providers of clinical care with a constant bedside presence, their roles are being as a primary driver of quality improvement (**Dorham & Sherwood, 2008**). The nurse uses clinical inquiry, which means "observing questioning, smelling, sensing intuitively, listening and integrating findings into oneself for the benefit of the patient," (**Hardin, 2009**).

Conclusion:

It is concluded that there were statistically significant differences between pre& post phases regarding; staff nurses' knowledge about organizational synergies system and staff nurses' performance. There were improvement in staff nurses' knowledge organizational synergies system levels, head nurse's knowledge, and job performance immediately after implementation of the educational program. There was positive correlation between organizational synergies system knowledge and total performance categories with statistical significant relation.

Recommendation:

In light of the study results, the following recommendations will be suggested: further encouraged the staff nurses to attend specific meeting as program &Seminar for explain how to impact organizational synergies system with patient in all critical care unit. Develop educational program for nursing staff caring for patient in all units at the whole hospitals. Repeat this research on a large sample size and different governmental hospital for generalization. Further researches are recommended to develop organizational synergies system, tools in nursing guidelines for patient care.

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