EFFECT OF AN EDUCATIONAL PROGRAM ON NURSES' KNOWLEDGE REGARDING MANAGEMENT OF PATIENTS UNDERGOING PERIPHERAL VASCULAR ACCESS

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ABSTRACT

Background: The vascular catheters uses is common in both inpatient and outpatient care that play an integral role in modern health care and are of great clinical value for supporting patient's status. Nursing management of peripheral vascular lines is important. A comprehensive understanding of the procedure features an excellent value so as to scale back the complications arising from peripheral vascular lines. All staff must remember all aspect of care and therefore the principles of safe insertion, injection, dressing change & flushing procedure. **This study aimed** to evaluate the effect of an educational program on nurses' knowledge regarding management of patients undergoing peripheral vascular access. **Subjects and method: Design**: quasi-experimental design (pre and posttest design) was utilized to conduct the study. **Setting:** study was conducted at Al-Azhar university hospital in New Damietta city. **Subjects:** The study nurses consisted of 50 nurses. **Tools:** self- administered questionnaire sheet to assess nurses' knowledge regarding management of patients undergoing peripheral vascular access. **The Results:** Majority of nurses (94%) had satisfactory total knowledge immediately post educational program implementation compared to (18%) pre program and (86%) of them follow up after educational program implementation. **Conclusion:** There was statistically significant difference in nurses' knowledge between pre and immediately post program implementation **Recommendations**: Providing ongoing education and practical training for areas of low performance to make sure the standard of care provided by nurses.

Keywords: Nurses' knowledge, Patient management, Peripheral vascular access, Vascular catheter management.

INTRODUCTION

Establishing vascular access is one of famous and common procedures administered within the Emergency Department (ED) with high priority for the care of critically ill and unstable patients. The patient's condition often plays a task within the likelihood of achieving vascular access. Vascular Access Devices (VADs) are provided to administer medications, fluids, blood products, and parenteral nutrition. These devices became essential tools within the treatment of the many ill patients who require repeated venous access and are common but integral components of the patient's plan of care (Emergency Nurses Association, 2016).

There are many sorts of vascular access devices or lines which healthcare team will decide what sort of line patient get supported the needs of the patient. Vascular access devices include intravascular devices inserted into peripheral veins, peripheral arterial devices, central venous catheters and Peripherally Inserted Central Catheters (PICC) (Bodenham, 2017). Peripheral intravenous catheter is that the insertion of a vascular access device into a peripheral vein. This procedure needs manual skills, professional competency, knowledge about the anatomy and physiology of vascular system (Qamar et al., 2017).

Arterial catheterization is usually utilized in the operating room and intensive care unit settings to supply quick access for continuous and real-time systemic blood pressure measurements, blood gas analysis, and other laboratory measurements. Arterial cannulation provides invaluable hemodynamic information that help practitioner in precise treatment of patients during the critical periods of care (Nuttall et al., 2016).

Complications and failure of intravascular devices place significant burden on nursing workloads, patient outcomes and therefore the health care system. The implementation of clinical practice surrounding the insertion and management of intravascular devices is an ongoing challenge to which nurse practitioners (NPs) in vascular access can respond (Ullman, Kleidon & Rickard, 2015). Certified nurses are permitted to perform or assist in cannulation for patients who require vascular devices. Therefore, from initiating cannulation to catheter removal, nurses play a crucial role to stop complications like infection and occlusion (Lang, 2012).

Nurses must be qualified in practical skill performance to ensure quality in patient care. Peripheral Vascular Access (PVA) is one of famous repeatedly performed invasive skills in hospitals. There is a chance about the danger of patient harm accompanied with a lack of skill proficiency in registered nurses. Inflammations, phlebitis, thrombosis, are examples of a consequence caused by poor catheterization. Inappropriate skill performance can also have consequences for the nurses, frustration, making mistakes, and time pressure, and is a reason why newly qualified nurses leave the profession. (Ravik, Havnes & Bjork, 2017).

AIM OF THE STUDY:

Evaluate the effect of an educational program on nurses' knowledge regarding management of patients undergoing peripheral vascular access.

Research objectives:

1. Assess nurses' knowledge concerning patient's management of peripheral vascular access.
2. Design nurses' knowledge educational program regarding management of patients with peripheral vascular access.
3. Implement nurses' knowledge educational program concerning management of patients undergoing peripheral vascular access.
4. Evaluate the effect of an educational program on nurses' knowledge regarding management of patients undergoing peripheral vascular access immediately after the program and after 3 months.

Research hypothesis:

Nurses' knowledge regarding management of patients undergoing peripheral vascular access will be improved after implementation of an educational program.

SUBJECTS AND METHOD:

Research Design:

A quasi experimental design (pre and posttest design) was utilized to evaluate the effect of an educational program on nurses' knowledge regarding management of patients undergoing peripheral vascular access.

Study Setting:

The study was applied in the intensive care units (ICUs) and Medical departments at EL-Azhar University Hospital in New Damietta.

Study sample:

All available nurses (36 nurses in I.C.U units divided into 35 female and 1 male, 14 nurses in medical departments) who are caring patients undergoing peripheral vascular access working in the above mentioned units at the time of the study.

Tools of data collection:

Tool I: Self- administered questionnaire sheet: It was adopted from (Saber, 2015 & Abd El- Azeem, 2009) to assess nurses' knowledge concerning management of patients undergoing peripheral vascular access. It is included three parts:

Part 1: - Demographic characteristics of nurses such as age, sex, qualification of nurses, training course regarding peripheral vascular lines, years of experience in ICU& medical department and nurse /patient ratio in the unit (3 open questions and 4 multiple choice questions).

Part 2: Nurses' knowledge assessment sheet:

It included nurses' knowledge regarding peripheral vascular access, its complications and nurses' role before, during and after the insertion of peripheral vascular lines. It composed of 40 questions as the following: Insertion of arterial line, Taking blood sample for blood gases, Measurement of arterial blood pressure, venous cannula, Complications of venous cannula and their prevention and Blood transfusion

Scoring system:

As regard to nurses' knowledge; the answers were evaluated by utilization of model answer prepared by the researchers, whereas the correct answer scored 1, and the incorrect answer scored 0, the total nurses answered score were summed up then converted into percent. Total nurses' knowledge score was as follow:

- ≥75% were satisfactory knowledge.
- <75% were unsatisfactory knowledge.   *(Bedier, Abo El- Ata, Ibrahim,2014)* also*(Ouda, Mahmoud, Kafl &Soliman,2019)*

Validity

It was done by group of 9 experts(3 assistants professors and 2 lectures , medical surgical nursing staff   & 2 assistants professors and 2 lectures from Al-Azhar University to check for clarity, relevance, comprehensiveness,   based on their point of view modifications were done.

Reliability:

 it was done using alpha Cronbach coefficient to assess the internal consistency of the tool and its value was (0.802) for knowledge.

Pilot Study

Pilot study was carried out on 10 % (5 nurses) of the study nurses to test the first and second tools before starting the data collection and they excluded from the entire sample of research work. The purposes of the pilot study were to test applicability and clarify of the study tools, and it served to estimate the time needed to complete the tools. It also helped to find out any obstacles and problems that might interfere with data collection, based on the findings of the pilot study, certain modifications of the tool was done.

Field work

The study was applied from the start of March (2019) till the end of December (2019), through the following phases:

Assessment phase:

At this stage after the tool was finalized, the researchers used study tool to assess the learning needs of nurses. Tool I is designed to assess nurses' knowledge about providing care to patients with peripheral vascular access. The researcher clarified the sheet (Tool I) to each nurse and asked them to complete it. The tool was filled in about 15 minutes to 30 minutes. According to the determined needs and requirements of nurses collected by researchers, and according to the latest literature, nursing procedures have been formulated

The educational program preparation

The education program was developed based on the needs of nurses during the assessment phase and review of relevant literature. This stage involves the following:

Setting objectives:

The aim of educational program was to improve nurses' knowledge concerning patient care with peripheral vascular access.

Preparation of the content:

The content covers all aspects of the care of patients involving peripheral vascular access, including the following:

1. Anatomy and physiology of vascular system.

2. Intravenous catheter (purpose, site of insertion, procedure of I.V Catheter insertion and complications of   I.V catheter).

3. Blood transfusion (nursing role before, during and after blood transfusion and complications of blood transfusion).

4. Arterial line (uses, sites of insertion, contraindications of uses, arterial line procedure, nursing role with arterial line and complications of arterial line).

5. Arterial blood gas sampling.

6. Invasive arterial blood pressure measurement.

Action plan:

During this step the researchers developed a plan for educational program application.

Educational program involved four sessions was delivered throughout 12 weeks, and The session timing was between morning and afternoon shift, and every session took about 30 to 45 minutes, The total number of groups were 10 groups (for each 5 nurses). Each group was given the freedom to choose their optimal time for receiving the educational program. Also, the teaching strategy of the educational program was determined by:

A- Selecting the proper teaching method such as (lecture, small group discussion, demonstration and re-demonstration)

B- Selecting the proper teaching media such as (handout, audio and video materials (lab).

Handout includes theoretical content and procedure steps was prepared to facilitate remember knowledge and steps about care of patients undergoing peripheral vascular access.

Educational program implementation phase:

At the beginning, the participated nurses were classified into 10 small groups every group involved 5 nurses, after that every group was joined to a conference room in a separate manner, the session consumed the available time during the working shift in morning and afternoon shift ,. The educational program was implemented for twelve weeks. Each session took 30-45 minutes.

• At the beginning of the training plan application, introduce the importance of the training plan, the introduction of the plan and the learning objectives to each group.

The protocol of care was introduced to nurses in terms of four sessions. The following schedule was applied:

- A hard copy of the printed material had been submitted to each nurse to facilitate the review of knowledge when explaining the theoretical part.

- The program was applied in a simple and concise way, using different teaching methods, such as group discussions, lectures, presentations and appropriate media (such as audiovisual materials).

- At the start of the session, the researcher started with a brief revision of what was discussed last sessions, followed by the objectives of the current session.

- The researchers showed all the procedure steps in front of the nurses, and discussed with them the rational of each step.

- At the end of the session, the researcher's asked the nurses about any vague steps which needed more explanation.

- The researcher stressed on that the session was applied for the teaching aim not for evaluation, so mistakes and forgetting were permitted and accepted and corrected immediately by the researcher.

- Finally, the researchers gave feedback, starting with positive points, then negative points, and immediately correct any missing items or mistakes to prevent other caregivers from making the same mistakes. Nurses are also asked to provide feedback about researchers.

Session	Time	Objectives
1st session	15 Minutes 15 Minutes 15 Minutes	• Discuss Anatomy and physiology of vascular system • Explain Peripheral Intravenous catheter, indications, sites & procedure of insertion • Explain insertion of intravenous fluids, complications of intravenous catheter& nursing role

2nd session	15 Minutes 15 Minutes 15 Minutes	• Define blood transfusion • Explain nursing role before, during and after transfusion • Mention complications of blood transfusion
3rd session	15 Minutes 15Minutes 15Minutes	• Define Arterial catheter • List Uses& contraindications of arterial catheter, Sites of insertion &Allen's test • Explain Nursing role during insertion
4th session	15 Minutes 15 Minutes 15 Minutes	• Mention Nursing role with arterial blood gases Enumerate Nursing role with invasive blood pressure measurement • Discuss complications of arterial catheter

Evaluation phase:

The program outcome was evaluated by using study tool, first evaluation immediately after program implementation, and second evaluation after three months.

After the plan was implemented, study tool was immediately used to evaluate the nurse's theoretical knowledge.

The second evaluation time was applied after 3 months, the researcher told the nurses to evaluate the program effectiveness and given the questionnaire to fill it.

ADMINISTRATIVE DESIGN

An official permission for data collection in Al-Azhar university hospital was obtained from the hospital administrative personnel by submission of a formal letter from the vice dean of the faculty of nursing in Port Said university. Meeting and discussion were held between the researcher and the nursing administrative personnel to make them aware about aims and objectives of the research, as well as , to get better cooperation during the implementation phase of the research , also nurses' oral consent were obtained before starting data collection.

Ethical Considerations:

1. Explain the research aim to the director of the unit to take his/her permission to do this study.

2. After explaining the purpose of the research and accepting the participation of the participants, they have the opportunity to refuse to participate and assure them that the collected information will be secretly managed and used only for research purposes.

STATISTICAL DESIGN

All data were collected, coded, tabulated and subjected to statistical analysis. Statistical analysis is performed by statistical package SPSS, also Microsoft office Excel is used for data handling and graphical presentation. Quantitative variable are described by the mean, standard deviation (SD), while qualitative categorical variables are described by percentage and proportions. Chi-square and P-value test used to test correlation.

RESULTS:

Table (1): shows that more than four fifths (84%) of the studied nurses were at age group 20-30 years old. majority of nurses (98%) were females and less than three quarters of them (72%) were working at I.C.Us, more than two thirds of them (70%) had diplome level of education, four fifth of them (80%) had no any training courses, more than one third of them (38%) had more than three years experiences and half of them (50%) had one nurse / more than two patients.

Table (2): illustrates that majority of the participating nurses (92%) had unsatisfactory knowledge level related to blood sample from arterial blood gases pre educational program implementation comparing to (32%) and (58%) of them immediately after and follow up the program.

In according to knowledge related to measure arterial blood pressure majority of the studied nurses (92%) had unsatisfactory level pre-program, more than one quarter of studied nurses (28%) of them immediately post educational program implementation and more than two fifths (42%) follow up the program. Moreover, most of nurses (82%) had satisfactory knowledge level related to complication of venous catheter pre educational program implementation comparing to all of them (100%) immediately post educational program implementation and (98%) of them follow up the educational program implementation.

Table (3): clarifies that there were no statistically significant relation between demographic characteristics of the studied nurses and their knowledge pre, immediately post and follow up after educational program except level of education at follow up after educational program.

Figure (1): clarifies that majority of nurses (94%) had satisfactory total knowledge immediately post educational program implementation compared to (18%) pre and (86%) of them follow up after educational program implementation

Table (4): shows the differences in nurses' knowledge throughout the program implementation. That there were statistically significant difference between pre and immediately post program implementation. **except in knowledge related to blood transfusion,** high statistical significant difference was found among pre & follow up program applcation except in knowledge related to blood transfusion

Table (1): Demographic characteristics of the studied nurses (n=50):

Item	Number (n)	Percentage (%)
Age (years)		
20 – 30	42	84.0
31 – 40	6	12.0
41 – 50	2	4.0
Over 50	0	0
Mean ± SD	27.2±5.2	
sex		
Female	49	98.0
Male	1	2.0
Department		
I.C.Us	36	72.0
Medical units	14	28.0
Education level		
Diplome	35	70.0
Technical institute	6	12.0
B.SC.	7	14.0
Post graduate	2	4.0
Training courses		
Yes	10	20.0
No	40	80.0
Experience / years		
Less than one year	17	34.0
1 – 3	14	28.0
More than three years	19	38.0
Mean ± SD	2.04±.85	
Nurse/patient ratio		
One / patient	4	8.0
One / two patients	21	32.0
One / more than two patients	25	50.0

Nurses' knowledge	Pre				Immediately post				Follow up			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
	n	%	n	%	n	%	n	%	n	%	N	%
Knowledge related to arterial cannula and its removal	6	12.0	44	88.0	36	72.0	14	28.0	29	58.0	21	42.0
Knowledge related to blood sample from arterial blood gases	4	8.0	46	92.0	34	68.0	16	32.0	21	42.0	29	58.0
Knowledge related to measure arterial blood pressure	4	8.0	46	92.0	36	72.0	14	28.0	29	58.0	21	42.0

Knowledge related to venous catheter	33	66.0	17	34.0	48	96.0	2	4.0	47	94.0	3	6.0
Knowledge related to complication of venous catheter	41	82.0	9	18.0	50	100.0	0	0.0	49	98.0	1	2.0
Knowledge related to blood transfusion	38	76.0	12	24.0	43	86.0	7	14.0	40	80.0	10	20.0

Table (2): Nurses' knowledge pre, immediately post and follow up after educational program (n=50):

Table (3): Relation between demographic characteristics of the studied nurses and their knowledge pre, immediately post and follow up after educational program (n=50):

Item	Pre		X^2	Sig	Immediately post		X^2	Sig	Follow up		X^2	Sig
	Satisfactory	Unsatisfactory			Satisfactory	Unsatisfactory			Satisfactory	Unsatisfactory		
	No (%)	No (%)			No(%)	No (%)			No (%)	No (%)		
Age (years):												
20 - 30	7(77.8)	35(85.4)			40(85.1)	2(66.7)			37(86.0)	5(71.4)		
31 - 40	2(22.2)	4(9.8)	1.44	.485	5(10.6)	1(33.3)	1.45	.484	4(9.3)	2(28.6)	2.34	.310
41 - 50	0(0.0)	2(4.9)			2(4.3)	0(0.0)			2(4.7)	0(0.0)		
Gender												

			X²	P			X²	P			X²	P
Female	9(100.0)	40(97.6)	.244	.636	46(97.9)	3(100.0)	.065	.799	42(97.7)	7 (100.0)	.166	.684
Male	0(0.0)	1(2.4)			1(2.1)	0(0.0)			1(2.3)	0(0.0)		
Education level												
Diplome	8(88.9)	27(65.9)			34(72.3)	1(33.3)	2.80	.423	32(74.4)	3(42.9)		
Technical institute	0(0.0)	6(14.6)	2.38	.497	5(10.6)	1(33.3)			3(7.0)	3(42.9)	7.64	**.050**
B.SC.	1(11.1)	6(14.6)			6(12.8)	1(33.3)			6(14.0)	1(14.3)		
Post graduate	0(0.0)	2(4.9)			2(4.3)	0(0.0)			2(4.7)	0(0.0)		
Training courses			4.76	.092			.400	.819			.507	.776
Yes	2(22.2)	8(19.5)			9(19.1)	1(33.3)			8(18.6)	2(28.6)		
No	7(77.8)	33(80.5)			38(80.9)	2(66.7)			35(81.4)	5(71.4)		
Experience / years												
Less than one year	1(11.1)	16(39.0)	4.19	.123	15(31.9)	2(66.7)			15(34.9)	2(28.6)	.903	.637
1 - 3	2(22.2)	12(29.3)			13(27.7)	1(33.3)	2.24	.325	11(25.6)	3(42.9)		
More than three years	6(66.7)	13(31.7)			19(40.4)	0(0.0)			17(39.5)	2(28.6)		

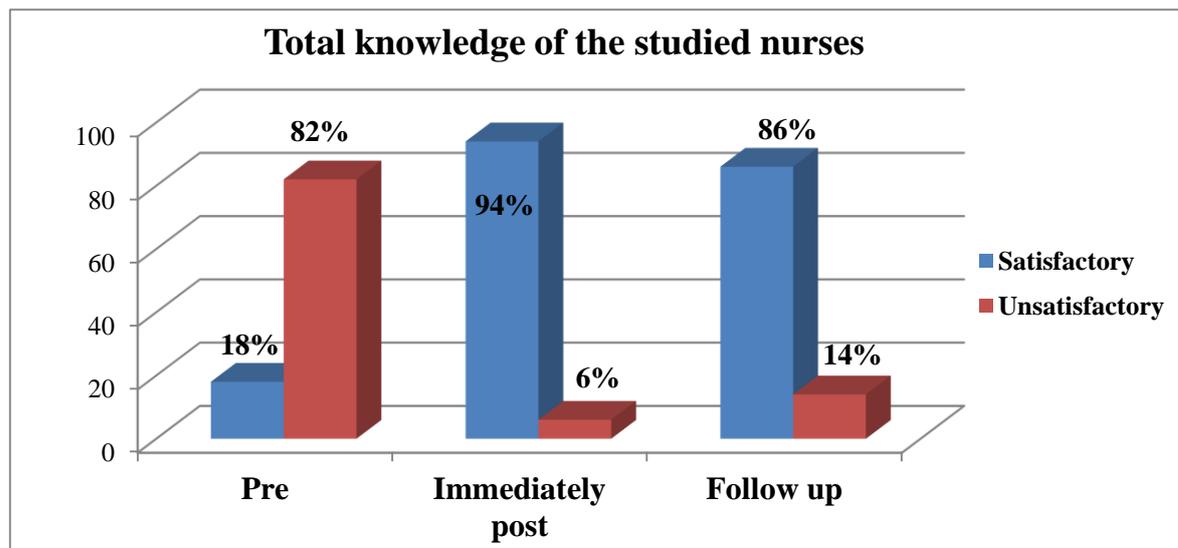## Total knowledge of the studied nurses

Figure (1): Total nurses' knowledge pre, immediately post and follow up after educational program (n=50)

Table (4): Difference in nurses' knowledge throughout the program implementation

Item	Before/ Immediate				Before / Follow up			
	Before Mean±SD	Immediate Mean±SD	t	Sig	Before Mean±SD	Follow up Mean±SD	T	Sig
Knowledge related to arterial cannula and its removal	6.4±2.9	10.8±1.6	8.51	**.000**	6.4±2.9	10.1±2.1	6.21	.000
Knowledge related to sample from arterial blood gases	3.4±1.6	5.7±1.2	8.53	**.000**	3.4±1.6	5.2±1.1	8.13	.000
Knowledge related to measure arterial blood pressure	2.9±1.1	5.0±0.9	11.20	**.000**	2.9±1.1	4.7±1.2	7.68	.000
Knowledge related to venous cannula	6.9±1.4	8.3±0.83	5.99	**.000**	6.9±1.4	8.04±0.9	4.57	.000
Knowledge related to complication of venous cannula	4.3±0.8	4.9±0.3	5.84	**.000**	4.3±0.8	4.7±0.4	3.88	.000
Knowledge related to blood transfusion	3.0±1.1	3.4±0.8	1.84	**.050**	3.0±1.1	3.0±0.9	----	---
Total knowledge score	27.1±6.4	38.1±3.7	10.42	**.000**	27.1±6.4	35.8±3.2	8.56	.000

DISCUSSION:

The result of current research revealed that more than four fifths of the studied nurses were at aged between 20-30 years old. majority of nurses were females and less than three quarters of them were working at I.C.Us, more than two thirds of them

had diplome level of education, four fifth of them had no any training courses, more than one third of them had more than three years experiences and half of them had number of patients one / more than two patients.

Most of the studied nurses had unsatisfactory level regarding knowledge related to blood sample from arterial blood gases pre educational program implementation comparing to after program implementation which show some improvement in nurses' knowledge. This might be due to that majority of nurses were young and not have sufficient experience related to arterial blood gases and lack of nurses' time to improve their knowledge. This result agree with (Abd Elkader, Shahin, Abo El-Ata, 2020) who stated that there is improvement in nurses' knowledge concerning arterial blood puncture and taking arterial blood sampling after applying program based learning. Also (Sabaq et al, 2019) and (Patil et al, 2020) found that there is positive effect of educational program on nurses' knowledge related to arterial blood sampling.

Regarding to knowledge related to measure arterial blood pressure. Most of the studied nurses had unsatisfactory level pre educational program concerned with measuring invasive arterial blood pressure. From the researcher's opinion this might be due to that, not all nurses involved in care of those patients need invasive arterial blood pressure. Only experienced and well trained nurses' deal with those patients as this procedure consider critical and need to special precautions. The present study agreed with (Alnair, 2017) which found that there is unacceptable level of nurses knowledge related to invasive hemodynamic monitoring. Concerning to (Ahmed, Eltayeb& Abd-Elsalam, 2016) who studied nurses' performance toward Invasive hemodynamic monitoring at critical care units in Sudan and mentioned that the overall knowledge of critical care nurses who participated in the study about invasive hemodynamic monitoring was not acceptable.

This result was inconsistent with (Lehman et al, 2013) who discussed that Blood pressure monitoring is essential in managing hemodynamically unstable

ICU Patients. Invasive arterial blood pressure is generally considered to be the gold standard, despite recognition that errors may be introduced by over- or under damping, calibration errors, and movement artifacts.

Concerning knowledge related to complication of venous catheter, majority of nurses have satisfactory knowledge about complication of venous catheter. This might be due to intravenous catheter considering a daily procedure that nurses do. The present study go in the same line with (Osti et al, 2019) who discussed in a study performed in Nepal that Intravenous catheter is a common procedure performed by nurses in every hospital and closely associated with the risk of nosocomial infections if standard care is not provided. In addition, most of nurses involved in that study had satisfactory knowledge of caring and maintaining peripheral intravenous catheter. The result of current study also agreed with another study performed in Pakistan (Qamar et al, 2017) who assessed nurses' knowledge and practices towards care and maintenance of peripheral intravenous cannulation and declared that nurses had satisfactory knowledge about the indications, complications and contraindications of intravenous lines.

Regarding relation between demographic characteristics of the studied nurses and their knowledge throughout educational program, there were no statistically significant relation among demographic characteristics of the studied nurses and their knowledge pre, immediately post and follow up after educational program except level of education. This result go in the same line with (kaur et al, 2017) who mentioned that no significant relation among demographic characteristics and knowledge scores and stated that their finding not have influence on the nurses' knowledge and practice scores. While (Thulasimani, 2010) mentioned that no significant association between demographic characteristics and nurses' knowledge level. This result also was disagreeing with (Abd Elkader, Shahin, Abo El-Ata, 2020) found that there was a statistically Significant relation among nurses' knowledge and their years of experience.

Also (Sabaq, El- Aasar & Mohammed, 2019) studied the effect of educational program on improving nurses' performance regarding arterial blood gases sampling and found that, there was a significant relation among nurses' knowledge and age at during pre test. They supposed the fact that the older nurses had more experience

and knowledge about ABGs than those the young one. Regarding difference in nurses' knowledge throughout the program implementation the present study result found that there were statistically significant differences between pre, post and scores. From the point of view of the researcher it might be due to lack of updating knowledge and overloaded area of working and when we offer the chance to nurses and provide them periodical Arabic guidelines their level will increase. This result in congruent with (Shrestha, 2014) who found that mean scores of nurses' knowledge was higher in post intervention and follow-up phases of nursing intervention guidelines.

Also (Mohamed, Mohamed, Mahmoud &El-Hosany, 2014) stated there was a significant improvement in nurses' knowledge concerning infection control in caring for patients with PIVC. In addition, (Abbady, Gaballah, Abotakia & Sherif, 2019) reported there was statistically improvement in nurse knowledge with statistical significant difference among pre-post and follow up of implementation.

CONCLUSION:

There was significant improvement in nurses' knowledge between pre, post program implementation regarding management of patient undergoing peripheral vascular access. Also there are differences in nurses' knowledge throughout the program implementation except in knowledge related to blood transfusion.

RECOMMENDATIONS:

- Providing continuous education for nurses to upgrade their knowledge concerning to patients care with peripheral vascular access.
- Close supervision and monitoring is needed to ensure the quality of care delivered by nurses while applying ‹monitoring and removing peripheral vascular lines.
- Availability of supplies & equipment necessary for care patients should be provided to nurses by the health institution.
- Application the current study on a large sample from different geographical areas to achieve more generalized results.

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تأثير برنامج تعليمي على معلومات الممرضين تجاه رعاية المرضى الخاضعين لوصلات الأوعية الدموية الطرفية

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الخلاصة

تعتبر قساطر الأوعية الدموية الطرفية شائعة الإستخدام فى رعاية المرضى وذلك لأنها تلعب دورًا أساسيًا في الرعاية الصحية الحديثة ولها عظيم الأثر فى تقييم حالة المريض. إن الرعاية التمريضية الخاصة بوصلات الأوعية الدموية الطرفية مهمة والفهم الشامل لهذا الإجراء وهذه المهارة له قيمة كبيرة من أجل تقليل المضاعفات الناشئة عن وصلات الأوعية الدموية الطرفية. فيجب على جميع الممرضات أن تكون على دراية بجميع جوانب الرعاية ومبادئ الحقن الآمن وكذلك اتقان عمل غيار على مكان التركيب وعمل تسليك للوصلات . لقد أجريت هذه الدراسة بهدف تقييم تأثير برنامج تعليمي على أداء الممرضات فيما يتعلق برعاية المرضى الخاضعين لوصلات الأوعية الدموية الطرفية. وقد تم استخدام منهج شبه تجريبي لإجراء الدراسة بقسمى العناية المركزة والباطنة بمستشفى جامعة الأزهر بدمياط على خمسين ممرض وممرضة. وقد استخدمت فى هذه الدراسة استمارة استبيان لتقييم معرفة ومعلومات الممرضات فيما يتعلق برعاية المرضى الخاضعين لوصلات الأوعية الدموية الطرفية وقد أظهرت نتائج الدراسة أن هناك تحسن ملحوظ في معلومات الممرضات فيما يتعلق برعاية المرضى الخاضعين لوصلات الأوعية الدموية الطرفية. الخلاصة: لقد حسّن البرنامج التعليمي ممارسات الممرضات فيما يتعلق بوصلات الأوعية الدموية الطرفية. وقد أوصت الدراسة بتقديم خدمات التعليم والتدريب المستمر للممرضات في المناطق ذات الأداء المنخفض لضمان جودة الرعاية المقدمة للمريض.

الكلمات المرشدة: برنامج تعليمي ،معلومات الممرضات ،رعاية المرضى، وصلات الأوعية الدموية الطرفية