

KNOWLEDGE OF NURSING STAFF TOWARDS INFECTION CONTROL MEASURES IN DELIVERY ROOM

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ABSTRACT

Background: nurses should use the standard precautions as the basic level of infection control precautions when delivering care to all patients, regardless of their presumed infection status. Therefore midwives and nurses should have sound knowledge and compliance with standard precaution. **The aim of the study:** To evaluate nurse's knowledge of infection control measures in the delivery room. **Method:** An exploratory descriptive study was conducted from August 2015 and extended to February 2016 on 51 nurses from four hospitals in Damietta governorate. The data were collected from labor rooms of Damietta hospit/als. Tool for data collection self-administers questioners was used. **Results:** The current study showed that the poor of standard precautions knowledge level and compliance are 72% and 100% respectively. There is a relation between age, education, work experience, and compliance with standard precautions at $p < 0.05$. At the same time no significant relation between training courses and compliance to standard precautions at $p < 0.05$. **Conclusion:** The nurses in the current study for knowledge have poor level regarding standard precautions. There is a relation between age, education, work experience, and knowledge of standard precautions. **Recommendations:** Knowledge of nurses should be updated; the importance of latest evidence-based practices of infection control in continuing education/training program should be emphasized, and training programs for new nurses about standard precaution and at regular intervals should be provided.

Keywords: Nurses, Compliance, Standard Precaution , delivery room

INTRODUCTION

Health care workers are constantly exposed to various microorganisms which caused them serious or even lethal infections. **(Twitch, 2003)**, increased infant mortality in developing countries resulted from hospital-acquired infections which are one of the main causes as some studies have shown. **(Huis et al., 2013)**. Statistics reported by World Health Organization (WHO), 1,400,000 people suffer from complications related to HAI. The rate of preventable hospital-acquired infections in developing countries due to medical care is estimated to be about 40% or above. **(World Health Organization, 2014)**. Nosocomial infections, such as endometritis, postoperative pelvic infection, urinary tract infections, neonatal sepsis, etc., are serious complications in normal vaginal delivery.

The incidence of postoperative infections approaches 38%. Surgical site infection which is the third most common nosocomial infection includes obstetrics and gynecological sources. An understanding of the fundamentals of the host, surgical risk factors, and vaginal flora can aid in the prevention of postoperative infections which result in significant morbidity and mortality. **(Faro & Faro, 2008)**.

It has been reported that the risk of healthcare-associated infection is 2 to 20 times higher in developing countries in comparison with developed countries and 5% to 10% of patients admitted to hospitals in developed countries acquire these infections **(WHO, 2008)**.

Infection control measures include appropriate hand hygiene and the correct application of basic precautions during invasive procedures are simple and of low-cost, but need health staff accountability and behavioral Change, in addition to improving staff education, reporting, and surveillance systems **(Boullègue, 2013)**.

The human element stays the efficient role in increasing or decreasing the chances of catching **(HCAI Cole, 2007)**. Healthcare workers compliance with standard precautions has been recognized as an important means to prevent and control healthcare-associated infections in patients and health workers. **(Garner, 1996)**. Standard precautions are defined as a set of infection prevention practices that apply to all patients, regardless of suspected or confirmed the diagnosis or presumed infection

status. **Center of Disease Prevention and Control (CDC), 2012**). These precautions considered the basic level of infection control precautions which are to be used, as a level of precautions. (**Center of Disease Prevention and Control CDC, 2007**)

Standard precautions are recommended when delivering the care to all clients, regardless of their health condition. It is also recommended that when handling equipment and instruments are contaminated or suspected of contamination, and in situations of contact risk with body fluids, blood, secretions, and excretions except for sweat, without considering the presence or absence of visible blood and skin with a solution of continuity and mucous tissues. They included precautions against agents that are transmitted by the following routes of transmission: droplet, airborne, and contact routes. (**Vaz et al., 2010**). Standard precautions aim to prevent and/or reduce transmission of HAI, and, at the same time, to protect nurses from sharps injuries. These aims can be achieved by the application of standard precaution measures which consist of the following elements: hand hygiene, prevention of sharp injuries, and personal protective equipment (gloves, gown, gaggle, facemasks, head protection, foot protection and wearing face shields). (**Center of Disease Prevention and Control CDC, 2007**).

Nurses are often exposed to several infections during the course of carrying out their nursing tasks. (**Kosgeroglu et al., 2004**). Nosocomial infection or Health-care-associated infection (HCAI) refers to an infection that is acquired during hospitalization, the process of care and not manifested at the time of admission to a hospital or other health-care facility. (**Nejad, 2011**). Nurses and midwives are directly worked with patient and susceptible to acquire infections from patients especially blood-borne diseases. It has been estimated that more than 170 million people worldwide are infected with Hepatitis C and about 40 million are living with HIV/AIDS. (**Richmond, Dunning, & Desmond, 2007**)

The critical role of nurses in patient care emphasis on the role of the control hospital-acquired infections. So the nurses are the key members of infection control team in hospitals. Therefore, nurses should have good knowledge and skills in the field of infection control. (**Joukar, & Taherri Ezbarami, 2007**). As revealed from evidence, the proper compliance with Standard Precautions can protect healthcare workers from various kinds of Occupational Blood Exposure, Hospital Acquired

Infections including pneumonia and intravascular catheter infections. (**Tetali, & Choudhry, 2006; Ayed et al., 2015**). presumed that 38.2% had a fair knowledge of standard precaution, and 77(37.8%) had good knowledge. However, 24.0% of the studied sample had poor knowledge level. According to their compliance, 52.9% had a fair level, 45.6% had a good level and only 1.5% had a poor level.

A study conducted by **Malekmakan et al. (2008)** about hand hygiene among healthcare staff noted that nurses' knowledge about standard precautions is insufficient and many of them believed that by wearing gloves no need for washing hands. (**McLaws et al., 2012; Asadollahi et al., 2015**).

AIM OF STUDY:

The study aimed to evaluate nurse's knowledge with infection control measures in the delivery room

SUBJECTS AND METHOD:

Research Questions

The following three research questions were formulated to achieve the aim of the current study:

1. What are levels and nurses' knowledge about the standard precautions at the selected Hospitals?
2. What are the relationships between the standard precautions knowledge with age, gender, education, years of experience, and training course on standard precautions?

Research Design

A descriptive, exploratory design.

Study Setting

This study was carried out at four hospitals in Damietta governorate namely: El-Azhar University Hospital, Damietta General Hospital., El-Aser Hospital. and Kafr Saad Hospital. The above mentioned settings chosen because it's the largest public hospitals which introduce a wide range of maternity services, having higher rate of vaginal delivery and having higher number of nurses working in delivery room.

Study Sample:

A convenience sample includes 51 nurses.

Tools of Data collection:

A self-administrative questionnaire was developed by researchers and used to assess:

- a) Socio-demographic characteristics of subjects consist of age, marital status, Hospital, Qualification, working experience, Special sharps disposal box in your department, Hepatitis B vaccine, and Infection control training course.
- b) Subjects' knowledge consists of 32 items, each item had a group of answer points, one point was awarded for correct answer; incorrect or I don't know answer took zero. The correct responses were summed up to get a total knowledge scores for each participant. Total score for all questions reached 32 grades and transformed to 100%.

Validity of the Study:

To assure the content validity of the questionnaire, it was revised and validated by panel of 5 experts in academic and health field; they agreed and no comments. Internal consistency among the questionnaire items was assessed 0.88 Cronbach's alpha (α) and it was considered acceptable.

Pilot Study:

Ten nurses from the labor department of Damietta hospital as a pilot study was included to assess the clarity of the questions, effectiveness of instructions, completeness of response sets, time required to complete the questionnaire and success of data collection technique. Pilot subjects were asked to comment on the applicability and appropriateness (validity) of the questionnaire. All questions were answered no clarity of questions were required. Then, the researchers determined that it would take 20 minutes to complete the questionnaire.

Ethical Considerations:

This study was approved by the nursing department, agreement with their permission for the investigators to utilize the targeted hospitals. Approval from nurses was obtained. Several strategies were utilized to protect the nurse's rights who agreed

to participate in this study. First, oral verbal consent of the nurses was obtained prior to the administration of the questionnaire. The nurses were informed of the purpose of the study, and that they had the right to refuse to participate. Also the voluntary nature of participation was stressed as well as confidentiality. Furthermore, the nurses were told that they can refrain from answering any questions and they can terminate at any time. Anonymity of them was maintained at all times.

RESULTS:

Table (1): show that the higher percentage of nurses (76.5%) in the study group was in the age group between 26-30 or more with a mean age of 27.8 ± 4.8 , only 3.9% of them below 20 years old. Meanwhile, majority of them had secondary level of education (diploma), only two of them had bachelor nurse (84.3%, 3.9% respectively). Moreover, most of them hadn't a periodical examination before or during work, hadn't any training course and are living in rural areas (84.3%, 76.5%, 52.9% respectively). But only about one third of them had vaccine against viral hepatitis (29.4%).

Table (2): shows knowledge concerning infection control measures in the delivery room. It reveals a deficit of the study sample knowledge regarding all items about infection. However, as much as 100.0% of the study group did obtain satisfactory knowledge about the definition of infection, its cycle, Infection preventive measures, Long hospitalization and risk of hospital-acquired infection, Health team as a cause of infection in delivery, Hospital-acquired infection due to hospitalization, and fever as an enough sign for infection (92.2%, 90.2% 88.2% 86.3%, 80.4% and 55.0% respectively).

Table (3): displays the results of nurses' knowledge regarding protective measures in the delivery room. The correct answer for hand washing is an essential procedure for infection control only mentioned by 2% of them, 35.5% of them were known hand washing techniques. Regarding wearing protective clothes most of them had an incorrect answer for purpose of wearing a protective gown, Types of protective clothes, and purpose of wearing sterile gloves (98%, 96.1, and 96.1% respectively).

Table (4): describes nurses' knowledge regarding equipment handling & processing in the delivery room. It points to disinfection definition was correct in 64.7% near half (49%) of them gave correct about types of preparation of disinfection solutions, and more than half 56% of the study sample were known that disinfection by using cidex. While about 10% disinfection solution is enough to kill HIV and Hepatitis viruses. On the other hand, as much as 94.0% of the study group did acquire knowledge about sterilization technique using steam and equipment preparation for sterilization by autoclave, most of them 88.2 % define sterilization while less than ten percent 7.8% of them were the known solution used in sterilization.

Table (5): Concerning nurses' knowledge regarding isolation in delivery room table 5. It denotes the purpose of isolation, measures, and precautions & waste disposal in the delivery room their knowledge was incorrect (100%, 98% and 68% respectively). Moreover, 94% of them had correct knowledge regarding assurance that medical waste or sharps allocated in its container and necessity to have a special container to keep needles and sharp instruments after use. Cleaning garbage containers after disposal of waste on a regular basis and using double bagging was correct knowledge by 70.6% of them while 43.1% of them had correct knowledge about waste disposed of bags must be changed at the end of the day.

Table (6): demonstrates nurses' knowledge regarding infection control measures in delivery room in the study group in all tested elements as such as their knowledge was incorrect sink founded near entrance of delivery room, Drug preparation zone far from patients' rooms, Good ventilation helping in spreading infection, and microorganism planted plate founded in delivery room (98.0%, 78%, 70.6% & 68.6% respectively)

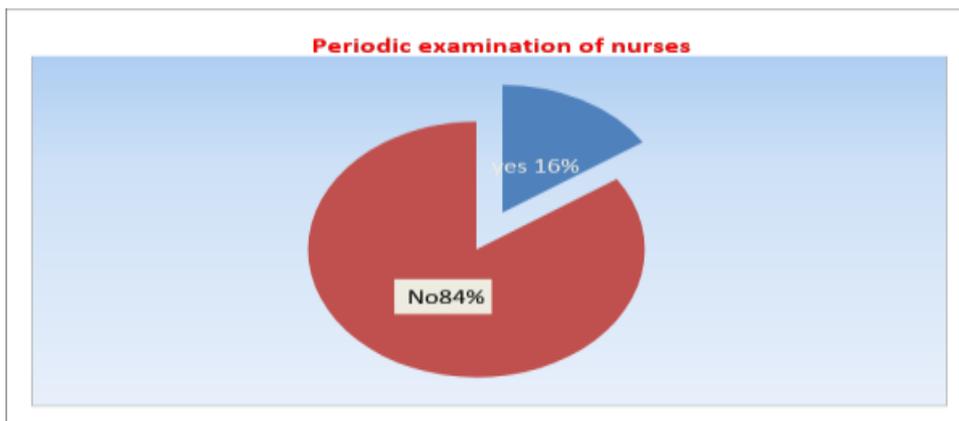
Table (7): total knowledge score regarding infection control measures in delivery. It reveals that 72% of them had incorrect total knowledge regarding infection control measures in the delivery room.

Table (8): Concerning the relation between nurses' knowledge & their general characteristics, statistically significant (0.005*) among nurses in age, educational level

year of experience, training course, residence, and vaccination against viral hepatitis and their knowledge about infection control measures. As increasing of general characteristic accompanied by increasing of knowledge.

Table (1): General characteristics of the studied nurses

General Characteristics	Frequency	Percentage
Age (years)		
<20	2	3.9
21-25	10	19.6
26-30 or more	39	76.5
Mean \pm SD	27.8 \pm 4.8	
Educational level		
Diploma nurse	43	84.3
Technical nurse	6	11.8
Bachelor nurse	2	3.9
Years of experience		
>1 Year	5	9.8
2-5 Year	3	5.9
>6 Years	43	84.3
Training course		
Yes	39	76.5
No	12	23.5
Place of residence		
Rural	27	52.9
Urban	24	47.1
Vaccination against viral hepatitis		
Yes	15	29.4
No	36	70.6
Periodical examination before and during work		
Yes	8	15.7
No	43	84.3

Figure (1): Periodic medical check up as reported by the studied nurses.**Table (2):** Knowledge of infection control measures as reported by the studied nurses.

Knowledge items	Incorrect		Correct	
	No	%	No	%
Definition of infection	51	100	–	–
Infection cycle	47	92.2	4	7.8
Hospital acquired infection due to hospitalization	41	80.4	10	19.6
Health team as a cause of infection in delivery room	44	86.3	7	13.7
Fever as an enough sign for infection	26	51	25	49
Long hospitalization increase incidence of hospital acquired infection	45	88.2	6	11.8
Infection can be prevented through infection prevention measures	46	90.2	5	9.8

Table (3): Knowledge of hand hygiene & wearing protective clothes as reported by the studied nurses. (n=51).

Protective measures	Incorrect		Correct	
	No	%	No	%
Hand washing				
Hand washing is an essential procedure for infection control	50	98	1	2

Hand washing techniques	33	64.7	18	35.5
Wearing protective clothes				
Types of protective clothes	49	96.1	2	3.9
Purpose of wearing protective gown	50	98	1	2
Purpose of wearing sterile gloves	49	96.1	2	3.9

Table (4): Knowledge regarding equipment handling & processing in the delivery room as reported by the studied nurses. (n=51)

Equipment handling & processing procedure	Correct		Incorrect	
	No	%	No	%
Disinfection				
Definition of disinfection	33	64.7	18	35.3
Types of preparation of disinfection solutions	25	49	26	51
Disinfection by using cidex	29	56.9	22	43.1
Disinfection solution is enough to kill HIV and Hepatitis viruses	5	9.8	46	9.2
Sterilization				
Definition of sterilization	45	88.2	6	11.8
Sterilization technique using steam	49	94.1	2	3.9
Equipment preparation for sterilization by autoclave	48	94.1	3	5.9
Dry heat sterilization kill all viruses	32	62.7	19	37.3
Solution used in sterilization	4	7.8	47	92.2

Table (5): knowledge regarding isolation & waste disposal in delivery room as reported by the studied nurses. (n=51)

Knowledge Items	Correct		Incorrect	
	No	%	No	%
Isolation				
Purpose of isolation	51	100	–	–
Measures of isolation	50	98	1	2
Precautions during isolation	35	68.6	16	31.4
Waste disposal				
Cleaning garbage containers after disposal of waste on a regular basis and using double bagging	36	70.6	15	29.4
Assurance that medical waste or sharps allocated in its container	48	94.1	3	5.9
Necessary to have a special container to keep needles and sharp instruments after use	48	94.1	3	5.9
Aspirator material between the region clean and unclean	39	76.5	12	23.5
Waste disposed bags must be changed at the end of the day	22	43.1	29	56.9

Table (6): Knowledge regarding infection control measures of environment among studied nurses (n=51)

Infection control measures in delivery room	Correct		Incorrect	
	No	%	No	%
Good ventilation helping in spreading infection	15	29.4	36	70.6
Sink founded near entrance of delivery room	1	2	50	98
Drug preparation zone far from patients` rooms	11	21.6	40	78.4
Microorganism planted plate founded in delivery room	16	31.4	35	68.6

Table (7): Total knowledge score regarding infection control measures in delivery room.

	No.	%
Knowledge overall		
<60 incorrect	37	72.5
≥60 correct	14	27.5
Total score		
Min. – Max.	30.0 – 49.0	
Mean ± SD.	41.98 ± 4.89	
Percent score		
Min. – Max.	52.63 – 85.96	
Mean ± SD.	73.65 ± 8.58	

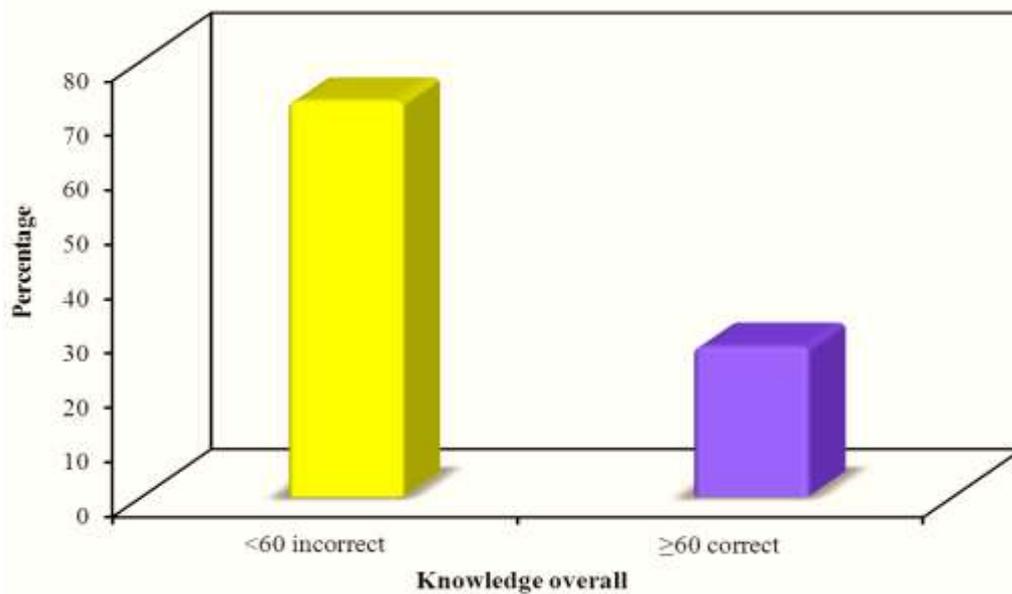


Table (8): Relation between studied sample`s knowledge & their area of residence

Personal character		Incorrect		Correct		X2	P-value
		No	%	No	%		
Age in years	<20	1	1.9	1	1.9	15.56	<0.001
	21-25	9	17.6	1	1.9		
	26-30 or more	37	72.9	2	3.8		

Educational qualification	Diploma	41	80.6	2	3.8	5.86	<0.05
	Technical	5	9.9	1	1.9		
	Bachelor	1	1.9	1	1.9		
Years of experience	>1 Year	4	7.9	1	1.9	7.62	<0.05
	2-5 Year	2	3.8	1	1.9		
	>6 Years	40	78.6	3	5.9		
Training course	Yes	6	11.9	2	3.8	13.65	<0.05
	No	40	78.4	3	5.9		
Residence	Rural	25	49.1	2	3.8	4.32	<0.05
	Urban	21	41.2	3	5.9		
Vaccination against viral hepatitis	Yes	14	27.5	1	1.9	9.81	<0.05
	No	34	62.7	4	7.9		

DISCUSSION:

The present study aimed to evaluate nurses' compliance with infection control measures in the delivery room through assessing nurses' knowledge, practice and attitude related to infection control measures in the delivery room. The above aim was examined within the framework of the present study research questions. The first research question was "what are nurses' knowledge and attitudes regarding infection control measures in the delivery room?"

Regarding nurses' knowledge about infection control measures in the delivery room, our findings revealed that the majority of the study sample' had incorrect total knowledge of infection control measures. On the same line (Shallby, 2009) reported a deficit in nurses knowledge about infection control. While, Tenias et al. (2009) stated that, the education is a key element in prevention and control of infection, his training workshops had a positive impact on health care providers knowledge about standard and guidelines of universal precautions along with an explanation of methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials, as well as information on types, proper uses handling decontamination and disposal of personal protective equipment.

In this respect Smeltzer & Bare, (2009) highlighted that, nurses must have knowledge and think through the complexities of using highly technical interventions

related to infection control measures in the delivery room and that the caring for mothers. Also, **Mathai et al., (2010)** reported that the education and gaining knowledge of healthcare workers is essential to improve their knowledge and practices and referenced that healthcare workers can protect themselves from contact with infectious material or exposure to communicable diseases by having enough knowledge and understanding of the infectious process and appropriate barrier protection .So the healthcare worker education has a positive impact on improving hand hygiene and reducing healthcare-associated infection.

Abou Elela,(2008) declared that education is a crucial element in prevention and control of infection, knowledge may be easily gained but performance needs facilities supplies and equipment's to be perfect.

The finding of the current study and previous study done by **Al-Tawfiq, et al. (2013)** who showed that the knowledge regarding preventive measures was poor; this is could be due to lack of preparation and or continuing education program for the staff. This is possible because they didn't receive enough knowledge or training lectures or seminar related to this topic during their academic undergraduate level preparation for both bachelor degree and diploma nurses.

The present study agreed with the previous study done by **Singh, et al. (2011)** who found that the only solution left is to control these infections by implementing preventive measures the simplest strategy for decreasing the incidence of sepsis is to maintain good hand hygiene but practically it is the most difficult to achieve. Its importance cannot be undermined in the delivery room. The rationale for hand washing /hand rub is to reduce the transient microflora.

Regarding nurses knowledge about hand washing the present study showed that the majority of nurses had incorrect total knowledge about hand washing although they were practiced hand washing procedure during their daily work, this might be interpreted as they didn't realize the importance of hand washing procedure in preventing and controlling transmission the most serious and dangerous infection.

Also in this respect, **Pincock et al., (2012)** found that hand hygiene at key moments during care is the most important means of preventing healthcare-associated infection (HAIs) and important principle of care.

This result congruent with **Al -Tawfiq et al., (2013)** who reported that less than half of nurses routinely washed their hands between patients. On other hands **Mostafa, (2003)** who document that the majority of the studies nurses had correct information about hand washing in his study. In this respect, **(Kalata et al., 2013)** reported that hands of nurses, doctors and, others who handle patients were considered one of the most important vehicles of cross- infection. Therefore the most important method of preventing nosocomial infections is hand hygiene. All medical personnel should wash their hands before and after any physical contact with the patient.

As regards nurses' knowledge about wearing personal protective equipment such as (Gloving, gowning, masking...) most of them had incorrect total knowledge. In this respect, **Thompson, (2004)** stated that gloves are considered important in the protection of both nurses and patients. It reduced nurses' exposure to blood and body fluids and provides additional protection for patients.

Additionally, as regard nurses knowledge about isolation, the present study showed that their total knowledge was incorrect. This finding approves with **Ahmed (2003)** who emphasized that , the staff awareness about the concept of infection prevention & control and the principles of aseptic techniques need to be reestablished to ensure nurses understand the importance of prevention of infection, **Al Tawfiq et al. (2013)** who stated that the knowledge regarding personal protective measures was poor, this is could be due to lack of preparation and or continuing education program for the staff.

It was demonstrated from the present study finding that the higher percentage of nurses in the study group was in the age group between 26-30 or more with a mean age of 27.8 ± 4.8 , Meanwhile, the majority of them had a secondary level of education (diploma), only two had bachelor nurse. More than half of them had 6 years of experience. These findings disagree with **Al Rawajfah et al., (2013)** who reported that

more than half of the nurses had holding Bachelor degree and the majority of nurses were less than 23 years old, and more than half of them had secondary graduation. This may be due to the difference in the place of study and the different personal characteristics of the studied group in other study samples.

Attending infection control lectures or training programs will not only improve practices and assist the inappropriate use of resources but also contribute to nurses' profile although infection control education is the responsibility of the individuals, it should be supplemented and facilitated by specialized infection control staff.

In this regards our finding showed that more than the half of nurses hadn't any previous training course related to infection prevention and control this result agree with **Hussein, et al.,(2011)** documented that the majority of nurses did not attend any training programs in this respect this may be due to the organization hadn't made any upgrading programs for nurses about infection control measures, they were busy with excessive unit work or had personal factors that prevent attend the training course as marriage and children.

Furthermore, the results of the current study showed that more than three-quarters of nurses hadn't pre-employment screening tests and periodic examination during the work this increased risk of spread of infection, absenteeism, and disability. This finding was in accordance with **Hussein, et al., (2011)** who reported that the majority of the studied group had not pre-employment screening tests and periodic examination during the work. So the nurses should monitor and to investigate potentially harmful infectious exposures and the outbreak of infection among personnel and to identify the infection risk factors related to employment.

Regarding immunization against viral hepatitis, in our study, two third of nurses were not immunized against viral hepatitis this doesn't comply with the national standard of infection prevention control. These findings are also consistent with **Hussein, et al., (2011)** who mentioned that nurses should be vaccinated to prevent the potential infection of HBV. The nurses are at risk for infection with hepatitis because they are frequently exposed to blood and other body fluids during the daily activities. So, routine immunization of nurses against infection with HBV is an effective way to

protect them and the patients as well as the community as a whole (**Health Protection Agency (HPA), 2010**).

In this concern , **Al Rawajfah et al . , (2013)** found that in the liver institute in Shebin El Kome Teaching Hospital, Menoufuyia, Egypt, about 8% of the nurses were a positive hepatitis B surface antigen, 28% of them were a positive anti-hepatitis B surfaces , and 24% had a positive anti-hepatitis C . The result of this study agrees with **Hussein, et al., (2011)** who found that the majority of nurses had not received any immunization against viral hepatitis. On the same line, **Zhang et al., (2013)** stated that routine HBV screening for high-risk health care workers very important to protect against infection.

Furthermore, a significant relation was observed from the present study findings between nurses' knowledge and their general characteristics in our study. This result agrees with **Zakzouk, et al., (2004)** who found a positive relation between years of experience and knowledge. This result agrees with **Hassan, (2011)** who found a statistically significant relationship between the level of education and knowledge. There is no doubt that education is open the learner's mind and increase their knowledge.

On other hands, this result disagrees with **Shalby, (2005)** who reported that there is no significant relation between nurse's years of experience and their knowledge. On the same line **Mohammed, (2006)** reported that there is no significant correlation between nurses years of experience and their knowledge

CONCLUSION:

The nurses in the current study for knowledge have poor level regarding standard precautions. There is a relation between age, education, work experience, and knowledge of standard precautions.

RECOMMENDATIONS:

- Knowledge of nurses should be updated; the importance of latest evidence-based practices of infection control in continuing education.

- A training program should be emphasized and training programs for new nurses about standard precaution and at regular intervals should be provide

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معلومات هيئة التمريض عن أساليب التحكم في العدوى في غرفة الولادة

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الخلاصة

يجب علي الممرضات استخدام أساليب التحكم في العدوى كمستوى أساسى أثناء تقديم الرعاية التمريضية لكل المرضى بغض النظر عن التاريخ المرضي السابق. لذلك يجب علي الدايات والممرضات أن يكون لديهم معلومات كافية والتزام أساليب التحكم في العدوى. **الهدف من الدراسة:** تقييم معلومات الممرضات عن أساليب التحكم في العدوى في غرفة الولادة. **تصميم البحث:** تم استخدام دراسة وصفية استكشافية لتحقيق الهدف من الدراسة. **مكان الدراسة:** 4 مستشفيات في محافظة دمياط (مستشفى جامعة الأزهر، المستشفى العام، مستشفى الأعصر، مستشفى كفر سعد). **عينة البحث:** جميع الممرضات العاملات في الأماكن السابق ذكرها (51 ممرضة). **نتائج الرسالة:** أن متوسط أعمار الممرضات تتراوح ما بين (6 - 10) سنة وكانت (3.9%) منهن حاصلات على بكالوريوس تمريض. أن معلومات الممرضات بصفة عامة عن أساليب مكافحة العدوى في غرفة الولادة سيئة بنسبة (52.9%) ومتوسطة بنسبة (19.6%) وجيدة (27.5%). والمهارات العملية للممرضات بصفة عامة غير مرضية بنسبة (100%). واتجاهات الممرضات بصفة عامة سلبى تجاه أساليب مكافحة العدوى. **التوصيات:** توصى الدراسة بضرورة الأخذ فى الاعتبار على احتواء المقررات الدراسية للممرضات على المعايير القومية لمكافحة العدوى التى تم وضعها بواسطة وزارة الصحة وتعميمها فى جميع المستشفيات بمحافظة دمياط. ووجود برامج تدريبية للارتقاء بمستوى أداء الفريق الصحى تجاه المعايير القومية لمكافحة العدوى.

الكلمات المرشده: ممرضات ، التزام ، أساليب التحكم ، غرفة الولادة