

Personal Hygiene and Safety among governmental Hospitals Nurses Staff in Mosul City

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Abstract

Objective: The present study aimed to knowing weak points which is lead to negligence it could be transmission of nosocomial infection.

Material and Method: The sample of the study included 100 nurses were selected randomly from the pediatric, surgical, emergency, I.C.U and operation room departments in AL-Salam and AL-Jamhory Teaching Hospitals in the Mosul City during a period which extended from the 1/10/2018 to 20/1/2019, the data were collected through an observation of each subject of the sample during working with the patients and fulfill in the checklist sheet.

Result: The findings of this research revealed significant values between gender and personal hygiene practices to the advantage of female, also there is significant relationship between level of education and personal hygiene practices to the advantage of colligate nurses.

Conclusion: the present study demonstrated that there was negligence in some personal hygiene practices among nurses such as (hand washing, use protective devices, use protective measures, and hepatitis B vaccination).

Keywords: *hygiene, safety, nurses staff*

Introduction

we can be prevented and controlled Transmission of infections in health care system through the implementation of special precautions which can be standard and basic precautions, which must be applied to all cases from the admission to hospital until discharge, regardless types of diagnosis or infectious degree , and addition (transmission-method) .⁽¹⁾ The patient's care managements in the health facility should be the same level of a "Standard precaution" applied work practices that are essential to formulate a high level of patient's protection, patient's visitors, and health care practitioner.

Warnings points to prevent infection transmission include the following:

hand washing and antisepsis (hand hygiene),use of personal protective like gloves, masks and equipment when handling blood samples and body secretions pay attention when handling of surgical care equipment and soiled linen, protection of needle stick and knife sharp

injuries, environmental management, cleaning from pollution ; and recycled of waste.⁽²⁾ the Infection can be control for most factors which that influencing to the transmission of infection between patients or health workers by using a prophylaxes method starting from hand washing, to all body hygiene and vaccination ⁽³⁻⁹⁾ Many researchers and studies have been seeking over the world health centers about nosocomial infection which are reviled careless to nosocomial infection control and no standards precaution in multi countries. Our research aimed to study the personal hygiene of health care giver staff. In addition the objective was to identify weak points which could lead to transmission of nosocomial infections.

Methodology

Descriptive study design depended to, 100 nurses were selected randomly from the pediatric and carried out that study in, surgical, emergency, I.C.U and operation room departments in (AL-Salam and AL-Jamhory Teaching Hospitals in the Mosul City

during a period which extended from the 1/10/2018 to 20/1/2019. Data were collected by checklist, which is as a guidelines and reference to established (8, 9). A questionnaires format consists of multiple fields and items as the purpose of this study. Checklist papers tested to pilot study in two hospitals on ten nurses to discover any problems and modified according to results. Data

were collected through an observation of each subject of the sample during working with the patients and fulfill in the checklist sheet. To describe and analyze the findings of the study, SPSS program (version 17) was used to analyze the data by using mean, percentage, and ANOVA test at P.=0.05.

Results

Table (1) Demographical characteristics of the study sample

Sex	No.	%
Male	53	53%
female	47	47%
Age	No.	%
Less than 25	5	5%
25-29	44	44%
30-34	19	19%
35-39	13	13%
More than 40	19	19%
Place of work	No.	%
I.C.U	20	20%
Pediatric	20	20%
Surgical	20	20%
Emergency	20	20%
Operation room	20	20%
Years of experiences	No.	%
Less than 5	38	38%
5-10	32	32%
More than 10	30	30%
Graduate of	No.	%
Nursing school	4	4%
preparatory nursing	18	18%
Institute	38	38%
College	40	40 %

Table-1- reveals that (53%) of the sample were males, (44%) of the sample were between (25-29) years of age, (38%) of them had experiences less than (5 years), and (40%) of them had bachelor degree in nursing science

Table (2) checklist scores for personal hygiene practices among nurses

Practice	Frequency	
	Yes	No
Use uniform according to hospital policy	96	4
Uniforms are clean	78	22
Use proper shoes (not slippers)	96	4
Have short fingernails	80	20
Do not wear jewellery (rings/bracelets)	78	22
Use needle-cutter or specific container to discard used syringes, needles and other sharp items	100	0
Wash hands before contact with patients	40	60
Wash hands after each step of working	80	20
Wash hands after contact with patients	40	60
Wear gloves when needed	40	60
Use protective devices (gown, mask, gloves and goggles) when in contact with infectious patients or if there is possibility of splashing blood or other drainages	40	60
Use protective measures if drawing blood (gloves, masks and goggles)	22	78
Hepatitis B vaccination complete (3 times)	50	50

Table -2- shows that 96% of the sample wear uniform according to hospital policy, 78% from them own uniform are clean, 96% use proper shoes, 80% of keep short fingernails, 78% not wear jewellery, 100% from the sample uses specific container to discard used syringes, 60% from them didn't wash their hand before contact the patients, 80% from them wash hands after contact the patients, 60% didn't wear gloves and never use protective devices when contact with infectious patients, 78% of nurses didn't use protective measures when drawing blood, Finally 50% from the sample didn't take Hepatitis B vaccine.

Table (3) Comparison of the differences between nurse's practice regarding hand hygiene rate and their gender.

Practice	sex	No	X	SD	DF	T.obs	P.value
Personal hygiene	Male	53	3.3	1.4	98	1.5	N.S
	female	47	3.5	1.4			
Hand wash	Male	53	3.4	2.2	98	0.04	S
	female	47	3.5	2.1			
Contact with patients	Male	53	4.3	1.7	98	0.03	S
	female	47	4.8	1.8			
Protective measurement	Male	53	1.6	1.0	98	0.8	N.S
	female	47	1.4	1.0			
Vaccine	Male	53	2.9	1.9	98	1.6	N.S
	female	47	3.2	1.6			

T critical=1.9

Table (3) shows that there was statically significant differences between hand hygiene rates and the gender of staff at p value= 0.05.

Table (4) one – way analysis of variance for the difference between hand hygiene practice by nurses and their age

Practice	S.O.V	SS	DF	MS	F.obs
Personal hygiene	Between Groups	1.630	4	6.157	1.011 N.S
	Within Groups	16.530	95	1.753	
	Total	17.160	96		
Hand wash	Between Groups	1.712	4	18.893	1.053 N.S
	Within Groups	22.288	95	5.269	
	Total	24.000	96		
Contact with patients	Between Groups	1.712	4	18.893	1.053 N.S
	Within Groups	22.288	95	5.269	
	Total	24.000	96		
Protective measurement	Between Groups	1.359	4	14.165	0.843 N.S
	Within Groups	15.801	95	3.432	
	Total	17.160	96		
vaccine	Between Groups	1.936	4	18.893	2.585 N.S
	Within Groups	24.064	95	5.269	
	Total	26.000	96		

F critical=3.32

Table -4-demonstrate that there were no statically differences with regards nurse's hand hygiene rates and their age at p value= 0.05.

Table -5-one – way analysis of variance for the difference between nurse's practice regarding hand hygiene rates and their level of education.

Practice	S.O.V	SS	DF	MS	F. obs
Personal hygiene	Between Groups	3.712	3	8.720	5.011 S
	Within Groups	22.288	96	1.003	
	Total	26.000	99		
Hand wash	Between Groups	9.132	3	3.044	19.653 S
	Within Groups	14.868	96	0.155	
	Total	24.000	99		

Cont... Table -5-one – way analysis of variance for the difference between nurse’s practice regarding hand hygiene rates and their level of education.

Contact with patients	Between Groups	9.132	3	3.044	19.653 S
	Within Groups	14.868	96	0.155	
	Total	24.000	99		
Protective measurement	Between Groups	1.392	3	1.464	13.875 s
	Within Groups	15.768	96	0.164	
	Total	17.160	99		
vaccine	Between Groups	8.26	3	2.675	15.132 s
	Within Groups	16.974	96	0.177	
	Total	25.000	99		

F critical=3.78

Table -5- revile that a significant differences for nurse’s hand hygiene rates and their level of education at (p value= 0.05. the majority of staff had bachelor degree in nursing science.

Table (6) one – way analysis of variance for the difference between nurse’s hand hygiene rates and their years of experience.

Practice	S.O.V	SS	DF	MS	F. obs
Personal hygiene	Between Groups	3.330	2	6.975	6.311 S
	Within Groups	16.830	97	2.987	
	Total	20.160	99		
Hand wash	Between Groups	0.163	2	113.907	10.653 S
	Within Groups	23.837	97	10.454	
	Total	24.000	99		
Contact with patients	Between Groups	9.132	2	3.044	19.653 S
	Within Groups	14.868	97	0.155	
	Total	24.000	99		
Protective measurement	Between Groups	0.181	2	8.500	5.166 S
	Within Groups	16.979	97	1.645	
	Total	17.160	99		
vaccine	Between Groups	0.219	2	29.565	5.536 S
	Within Groups	24.781	97	5.341	
	Total	25.000	99		

F critical=4.6

Table -6- shows that there were a significant differences between nurse’s hand hygiene rates and the years of experience at p value= 0.05.

Discussion

Since the era of Islamic message, Islam religion encouraged people to maintain personal hygiene especially hand washing before and after eating, before and after use of toilet to prevent transmission of disease from one person to others. ⁽²⁾, Florence Nightingale in 1854 was stated the relationship between nursing performance and infection control that was first identified during the Crimean war, when she worked at a military hospital in Scutari/ Italy, the services in that hospital was too bad . Nightingale's notes and her believes in this health facility led her to believe the enhancing hygienic conditions would decrease the number of deaths. "championed the cause of improved hygiene, food, and living conditions for the hospitalized soldiers she attacked the hospital conditions and called for basic public health, infection control measures, cleanliness, hygiene and education about the importance of the issue" . The confirmation was come from Jean Lawrence, which is chairman of the Infection Control Nurses Association (ICNA) he also said that Florence Nightingale was maybe the first nurse mentioned to infection control without recognized it ⁽⁸⁾. Now the nursing staff are the key which are players the important role during health care to ensure the survival of infection control. ⁽⁷⁾. Nosocomial infection control is conceder important for three main cusses : the first one to avoiding transmission of infections from patients to health care provider staff and from them to patients ,second one to development the bacterial support and resistance, finally to limitation of financial consuming resources ^[9,10]. in 3 ways could be Transmission of nosocomial infections in hospitals, from patient to patient, patient to health staff and health caregivers to patients ^[11]. A huge reason for transporting of microorganisms is because forgetting hand washing, protective devices such as gloves and masks and a weak of personal hygiene in HCWs, in particularly improper disposal of sharp tools, ^[12]. The major findings of this study were as follows: hand washing compliance was significantly higher among female nurses ($p=0.04$) than male nurse (see Table-3).This finding is supported by the study of (Askarian, 2014) which concluded" that the Female nursing staff in CCU unit pay attention to hand washing significantly more than males after patient care contact.⁽⁴⁾ [Malekzadeh, 2015], said that inter gender behaviours differences with regard hand washing may be as a result of basic differences in the education of parents on hand hygiene for girls and boys. However females were more look after. Which also add more support to this result. Similar findings have been

stated, that led us to think females were more likely to wash their hands than male in HCWs ^[5]. The study also revealed slightly significant relationship between the level of education and hand washing ($p=0.04$), majority of the staff (%40) were staff nurses which had bachelor degree (see Table-4). This results is a similar with the study did in Italy ^[6] which stated that "nurses how are graduated from a higher level of education and with a higher knowledge of risk a transmitting and infectious disease as well as during working were more focusing to doing appropriate antisepsis of the surgical wound with hand washing pre and post medication care ^[13]. [Health centre, 2016] suggested that to be careful a high level of hand cleanses adherence, HCWs need education, clear guide notes, and some understanding to infection complications. This study reveals also that there were statistically significant difference between years of experience and hand washing practice (see Table-6). While the exact reasons for these observed patterns are not clear, several possibilities exist. The first, are that of all health care settings put a lot of effort to make sure that all staff should compliance with WHO Quid lines of hand washing whenever contact with the patients., the second is that the dramatically increase in the number of high educated nursing staff.

Conclusion

Hand washing is important. This study has shown that there was negligence in some personal hygiene practices among nurses such as (hand washing, use protective devices, use protective measures, and hepatitis B vaccination).

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq

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