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Comparison of Hand Hygienic Practices in Nurses of Neonate and Pediatric Unit Allied Hospital and DHQ Hospital Faisalabad

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Abstract: The present study investigates the comparison of hand hygienic practices in nurses of neonate and pediatric unit allied hospital and DHQ hospital Faisalabad. Hand hygiene is a primary measure to reduce infection in neonates. Hand hygiene is a simple procedure. That can help in reducing morbidity and mortality rate. The purpose of this study is to comparison of hand hygienic practices in nurses of neonate and pediatric unit Allied hospital and DHQ hospital Faisalabad. To assess nurses compliance of hand hygiene related to new born care. To assess association between hand hygiene training and hand washing practice. The study's methodology involved descriptive quantitative study design. Sample size was 180. Questionnaires were distributed to the nurses of two hospitals. 150 questionnaires returned back. Questionnaire was containing in 3 sections. The data analysis was done using SPSS software version 21. Results describes about I receive formal training for hand hygiene. Results indicate that 100% respondents were Agree with the statement. The mean is 1.0000 with .00000 standard deviation. Results describes about There is a relationship between good hand hygiene practice and hospital acquired infections. Results indicate that 88.0% respondents were strongly agree, 12.0% agree with the statement. The mean is 1.1200 with .32605 standard deviation. Results describes my clinical nursing instructor consistently performs HH when necessary. Results indicate that 65.3% respondents were strongly agree, 28.0% Agree and the UN decided 6.7% with the statement. Hand washing is a primary measure to reduce infection and prevent spread of health care associated infection. Descriptive quantitative design used for this study. Data was collected through adopted questionnaire Descriptive statistics was used for analyzing date.

Keywords: Hand hygiene, Compliances, Nurse, Neonates, Pediatric Unit.

INTRODUCTION

Hand hygiene is a core element of patient safety for the prevention of Health Care Associated Infection (HAIs) and spread of anti-microbial resistance. Its promotion represents a challenge that requires a multimodal strategy. Hand hygiene prevents cross infection in hospitals, but Health Care Workers (HCWs) adherence to hand hygiene guidelines is poor. Easy, timely access to both hand hygiene and skin protection is necessary for satisfactory hand hygiene behavior. Alcohol based hand rub may be better than traditional hand washing as they require less time, acts faster, are less irritating, and contribute to sustained improvement in compliance associated with decreased infection rates [1].

Hand hygiene is the practice, which keeps the hands free from pathogens or decrease the amount prior to any procedure or touching the patient. Hand hygiene prevents cross – infection in hospitals, but HCWs adherence to hand hygiene is poor. Easy, timely access to both hand hygiene and skin protection is necessary for satisfactory hand hygiene behavior [1].

Hand hygiene compliance rates among HCWs rarely exceeds 50% contact precaution are thought to increase HCWs hand hygiene awareness [2]. Health Care associated infections (HCAIs) are the major cause of morbidity and mortality. Hand hygiene is an effective preventive measure [3].

Pakistan ranks third, among the ten high burden countries and accounts for 7% of global neonatal deaths. The latest Demographic of Pakistan Health survey (PDHS) 2012–13 reported a neonatal mortality of 55 per 1,000 live births due to poor compliance of hand hygiene [4]. According to WHO [5], that HCAI is 2 to 20 times more in developing countries rather than developed countries [6]. Hand hygiene is a primary precaution to prevent infection during invasive procedure in neo natal unit therefore nurses liable to improve education about infection control measure and change behavior about hand

hygiene compliances [7]. Adequate hand hygiene compliances in nurses will help in reducing the number of hospital acquired infection around about 15% to 30 % [8].

Statement of Problem

Health care associated infections persist as a major problem in most Intensive Care Units. Hand hygiene is the most simple and effective method for the prevention of these. So assess the reported hand hygiene practices and observing is very much important to find out gaps, plan remedial measure to reduce HAIs. From this point of view the researcher decide to assess the hand hygiene practices among HCWs.

Objectives of the study

The objectives of this study were:

- To assess nurses compliance of hand hygiene related to new born care.
- To assess association between hand hygiene training and hand washing practice

Research Questions of the study

Three research questions were posed:

- Is nurses' compliance to hand hygiene attending newborn?
- Do nurses perform hand hygiene compliance according to protocols?
- Is any association between hand hygiene training and hand washing practices?

Significance of the Study

There a lot of studies all over the world however, there is scarcity of information related to hand hygiene in Pakistan. This study will help in providing information about nurse's compliance of hand hygiene attending new born babies. This study will help nurses to perform hand hygiene according to standard protocol and improve quality of care. This study finding will help the organization to improve practices of hand hygiene; it will decrease the infection, mortality and morbidity rate of newborn in Allied and DHQ Faisalabad. Hand hygiene may be effective and low cast method for nurses in hospital setting. In this way they reduce the number of like hood infection [9].

METHODOLOGY

This chapter provides a description of the research approach and design, philosophy study, study location, target population, sample and sampling method, sample size and data equipment's.

Research design

A descriptive quantitative design was utilized for this study.

Study Population

A descriptive cross-sectional study was conducted in Allied hospital and DHQ hospital Faisalabad.

Sample Size

Sample size was calculated online relief application. 180 sample size calculated in nurses working in neonate and pediatric unit Allied hospital and DHQ hospital Faisalabad. But 150 questionnaires returned back.

Sampling Technique

A convenient non-probability sampling technique was adopted. In the first stage, the questionnaires based on calculated sample was distributed between nurses of neonate and pediatric unit Allied hospital and DHQ hospital Faisalabad. The nurses who were willing to fill the questionnaire. Who were not willing to fill questionnaires were simply ignored. This technique is quicker to gather information. A total of 180 questionnaires were distributed and 150 questionnaires were returned back making a response rate of 89% due to absence of some students during the study period (3.8%), incomplete questionnaires (5%), and lack of interest in the study (2%).

Study Tool

A semi structured questionnaire was used to bring together the following data: socio-demographic characteristics, for example age, residence, sex, marital and working statuses, hand hygienic practices in nurses. A pre-tested questionnaire will be introduced for data collection from Allied hospital and DHQ hospital Faisalabad. Study design will be cross sectional. I will be use convenient sampling technique.

Pilot Testing of the Study

Before the main study re1iabi1ity and va1idity 0f the instruments were tested by pi10t study. Wh01e research pr0cedure was f0110wed inc1uding data c011ecti0n, data ana1ysis and interpretati0n 0f data. Pi10t study was carried 0ut with sma11 size samp1e size. The main purp0se 0f the study was t0 determine the va1idity and re1iabi1ity 0f the instrument. Allied hospital and DHQ hospital Faisalabad in the province Punjab were se1ected f0r pi10t study by using rand0m samp1ing technique.

Reliability of Instrument

The Pilot testing checked reliability of the tool. 10 questionnaires were distributed in nurses. The result of these 10 questionnaires was reliable. The researcher checked the Cronbach (alpha) and the values are

Data Collection Procedure

The researcher 0btained the requisite c0pies 0f the questi0ner acc0rding t0 the samp1e 0f the research. The researcher inc1uded a c0vering 1etter f0r the purp0se t0 guide resp0ndents ab0ut the nature and significance 0f the study. It was a1s0 menti0ned that the acquired data w0u1d be kept in strict c0nfidence by the researcher.

Data Analysis

Descriptive statistics were rep0rted as frequencies, z-test, means and standard deviati0ns, medians was used t0 determine the re1ati0nship between characteristics 0f nurses, their barriers to continue higher education among hospital employed nurses.

ANALYSIS AND DISCUSSION

This chapter describes answers of the research questions in a precise manner. Each of the research questions is addressed separately/individually using relevant statistical techniques. Each of the research questions is addressed separately/individually using relevant statistical technique described in tables.

Demographic of the Study

Gender	**F**	**%**
Female	150	100.0
Age wise classification		
20-25 years	16	10.7
26-30 years	15	10.0
36-40 years	65	43.3
Qualification wise classification		
Matric	15	10.0
Fsc	4	2.7
F.A	23	15.3
B.Sc	96	64.0
B.A	4	2.7
M.A	8	5.3

Results indicates that gender wise classification female were 150 (100%) percentage

Results indicate that age wise classification 20-25 years ago were 16(10.7%), 26-30 years were 15(10%) and the percentage of 36-40 years were 65 (43.3%).

Results indicates that qualification wise classification metric education were 15 (10%), F.Sc were 4(2.7%) FA were 23(15.3%) were B.sc 96(64%) were BA 4(2.7%) and the percentage of post M.A 8(5.3%).

I am generally satisfied with my own hand hygienic practices

Opinion	F	%	M	SD
agree	150	100.0	1.0000	.00000

Table-7 describes about I am generally satisfied with my own hand hygienic practices. Results indicate that 100% respondents were agree with the statement. The mean is 1.0000 with .00000 standard deviation.

I feel confident in my knowledge of encounters that require hand hygienic during patient care

Opinion	F	%	M	SD
Strongly agree	63	42.0		
Agree	22	14.7	2.7333	.59828
UN decided	65	43.3		
Total	150	100.0		

Table-8 describes about I feel confident in my knowledge of encounters that require hand hygienic during patient care. Results indicate that 42.0% respondents were Strongly agree, 10.7% Agree and the UN decided 43.3% with the statement. The mean is 2.7333 with .59828 standard deviation.

I receive formal training for hand hygiene

Opinion	F	%	M	SD
Agree	150	100.0	1.0000	.00000

Table-9 describes about I receive formal training for hand hygiene. Results indicate that 100% respondents were Agree with the statement. The mean is 1.0000 with .00000 standard deviation.

DISCUSSION

The purpose of my study was to comparison of hand hygienic practices in nurses of neonate and pediatric unit Allied hospital and DHQ hospital Faisalabad. So at the end, in this chapter discus the final result of the study and compare result of my studies with other studies for conclusion. Despite this, present day data suggest that hand hygiene compliance among health care personnel in most hospital is at best, less than 50%. Working in ICUs, Doctors under staffing, overcrowding, high intensity patient care insufficient time, lack of institutional priority etc. were some of the risk factors for poor hand hygiene compliance. Many attempts have been made in the past to improve hand hygiene compliance such as educational intervention, motivational programmers etc. However, most of these met with little or temporary success. Hence several multi-faceted interventions, which include behavioral, environmental and social changes, have been suggested and tried to sustain improvement in hand hygiene compliance. In the present study the investigator assess the hand hygiene practices among HCWs in CSICU. On analysis it was found that 38% of respondents use soap and water and 70% used alcohol based hand rub for hand hygiene. Suchitra et al., [10] conducted a study to assess the hand hygiene compliance, in the study the researcher given 270 opportunities for hand washing. The categories of staff were doctors, nurses, and ward aides. The total compliance was 63.3%. Hand washing done by soap in 41 situations (71.9%). The remaining 16 (28%) opportunities were by use of hand disinfections agents. Compliance in hand hygiene was differed among the different categories of HCWs.

CONCLUSIONS

The aim of my study to assess compliance with hand washing among nurses caring newborn babies in Allied and DHQ hospital. Hand washing is a primary measure to reduce infection and prevent spread of health care associated infection. Descriptive quantitative design used for this study. Data was collected through adopted questionnaire Descriptive statistics was used for analyzing date. The results of this study conclude that nurses compliance rete low regarding hand hygiene. Nurses do not follow standard protocols attending newborn babies. Therefore result suggests that nurses improve hand washing compliance attending hospitalized babies.

RECOMMENDATION

Based on result of this study, the following recommendations are formulated:

- Hand hygiene is a fundamental procedure prevents and cures from disease. WHO give standard protocols for hand washing but nurses do not perform hand washing according to protocols. WHO guidelines should be pasted in washing places.
- Workshops and teaching session should be arranged for improve hand hygiene practices.
- Proper resources should be provided for hand washing.
- Administration should be made check and balance policy for hand washing.

Limitation

The limitation of this study is time shortage and nurses were reluctant to full fill questionnaires.

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