

Effectiveness of Video Assisted Teaching Module on Knowledge and Practice of Staff Nurses Regarding Hospital Acquired Infections in Neonatal Units at Selected Hospitals, Salem

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Abstract

A quasi experimental pre and post test with control group research design was undertaken at selected hospitals of Salem to assess the effectiveness of a Video Assisted Teaching Module (VATM) on knowledge and practice of the staff nurses regarding hospital acquired infection in neonatal units. Data was collected from 220 staff nurses from various hospitals of neonatal units and analysed by using descriptive and inferential statistics. In experimental group, the overall pretest mean knowledge score was 10.35 ± 2.80 whereas post test mean score was 17.59 ± 3.21 with a mean difference of 24%. The overall pretest mean practice score of the experimental group was 12.93 ± 1.87 whereas post test mean score was 21.41 ± 2.96 with a mean difference of 28%. It is evident that the video assisted teaching module was very effective in improving the knowledge and practice of staff nurses in experimental group. There is a positive correlation between post test knowledge and practice among experimental group of staff nurses regarding Hospital acquired infections which is significant at 0.001 level.

Keywords: VATM, Neonatal ICU, Hospital acquired Infections

Introduction

Nosocomial infections affect more than 1.4 million patients in a year and the rates have been rising steadily in the world. In India, nosocomial infection rate is at over 25% and it is responsible for more mortality than any other form of accidental death. Neonatal nosocomial infections are an important cause of neonatal morbidity. However, reporting in our country is not uniform. According to recent report in India the neonatal infection rate is 44/1000 live birth. The reported incidence of nosocomial sepsis in neonates from India is ranging from 1.5% to 37%. In contrast, surveillance reports from the USA have reported a rate of 0.9% to 7%. Neonatal infection in the neonatal intensive care Unit is a problem of developing and developed countries. Approximately 70% of infant discharged from

community teaching hospital reported neonatal nosocomial infection rate of 0.9% to 1.1% in United Kingdom. There is a need to stress upon strict adherence to aseptic protocols in neonatal units.

Statement of the Problem

A study to assess the effectiveness of video assisted teaching module on knowledge and practice of staff nurses regarding hospital acquired infections in neonatal units at selected hospitals, Salem.

Objectives of the Study

- (1) To find out the effectiveness of video assisted teaching module on knowledge and practice of staff nurses regarding hospital acquired infections in experimental group.
- (2) To find out the correlation between knowledge and practice of staff nurses regarding hospital acquired infections in experimental group.

Literature Review

“The physical environment of the hospital is similar in many respects to that of the industrial community and the potential environmental health problems are largely the same. Also, it may be said that the hospital is a community of ill people, many of whom harbor virulent bacterial or viral pathogens.” – John J. Perkins

Every year, patients in health care institutions across the country contract health care associated infections (HAI) that require extended hospital stays and increased use of antibiotics. Such infections can cause patients great discomfort and adversely impact the overall quality and cost of health care.

There are three levels of neonatal care and an isolation unit in an NICU. In level I, 80% of new born babies require minimal care which can be provided by their mothers under the supervision of staff nurses. In level II, infants weighing between 1200-1800 g or having gestational maturity of 30 to 34 weeks require specialised neonatal care supervised by trained nursing professionals and paediatricians. In level III babies weighing less than 122 g or those born before 30 weeks of gestation are treated.

Klebsiella pneumoniae is medically the most important organism of the *Klebsiella* species. It is responsible for a significant proportion of hospital-acquired infections including septicemias, UTI, pneumonia, and soft tissue infections. The hands of healthcare workers and the gastrointestinal tract of hospitalized infants serve as reservoirs for the transmission of the organism and responsible for multiple hospital outbreaks.

Considering the important role of nurses in hospital acquired infections, there is a need to develop a system of continuous education to increase the staff nurses awareness and hence adopt appropriate health behaviours and increase adherence to precautions.

The aim of nursing education principally centers on the transmission of nursing knowledge and assisting the staff nurses to acquire the necessary skills and attitudes associated with nursing practice. One way to enhance nursing education is to evaluate the effectiveness of teaching in nursing education program, as interest in evaluating teaching effectiveness has increased over time and acceptance of the need to evaluate teaching has continued to grow.

Materials and Methods

A quasi experimental, pre and post-test with control group design was adopted for the present study to assess the knowledge and practice of staff nurses on Hospital acquired infections in Neonatal ICU. The study was undertaken in selected hospitals of Salem. The participants for the study were chosen from various hospitals of neonatal units. Closed ended questionnaire and observational check list were used to collect the data from 220 staff nurses. The collected data was analysed and interpreted in the light of objectives and hypothesis of the study by using descriptive and inferential statistics

Statistical Analysis

Table 1: Comparison of Overall and Area wise Distribution of Mean, SD, and Mean Percentage of Pre- and Post-test Knowledge Scores of Staff Nurses regarding HAI among Experimental Group

Knowledge	Max Score	Experimental Pre-test			Experimental Post-test			Difference in Mean Percentage
		Mean	SD	Mean %	Mean	SD	Mean %	
Overall	30	10.35	2.80	35	17.59	3.21	59	24

The overall pretest mean score was 10.35 ± 2.80 which is 35% whereas post test mean score was 17.59 ± 3.21 which is 59% depicting the 24% of difference in mean percentage. It is evident that the VATM was very effective on the knowledge of staff nurses in experimental group.

Table 2: Comparison of Overall and Area wise Distribution of Mean, SD, and Mean Percentage of Pre- and Post-test Practice Scores of Staff Nurses regarding HAI among Experimental Group

Practice	Max Score	Experimental Pre-test			Experimental Post-test			Difference in Mean Percentage
		Mean	SD	Mean %	Mean	SD	Mean %	
Overall	30	12.93	1.87	43	21.41	2.96	71	28

The overall pretest mean score was 12.93 ± 1.87 which is 43% whereas post test mean score was 21.41 ± 2.96 which is 71% depicting the 28% of difference in mean percentage. It is evident that the VATM was very effective in improving the practice of staff nurses in experimental group.

Discussion

Based on the analysis and findings of Mimi Lalmuanpuii, et al., after administering the video assisted teaching program the mean knowledge score increased from 17.38 to 26.03. It is observed that there is an evident increase in the knowledge scores of staff nurses in the study after administration of video assisted teaching program. The overall pretest mean knowledge score for experimental group was 10.43 ± 3.12 where as post test mean score was 17.59 ± 3.21 which is depicting the 24% of difference in mean percentage shows that VATM was very effective in experimental group. The overall pretest mean practice score for experimental group was 12.93 ± 1.87 where as post test mean score was 21.41 ± 2.96 with a mean difference of 28% shows the effectiveness of VATM on practice. It is evident that VATM was very effective in experimental group as their level of knowledge and practice has increased. There is a positive correlation between post test knowledge and practice among experimental group of staff nurses regarding Hospital acquired infections which is significant at 0.01 level.

Conclusion

As healthcare industry is growing there are many challenges, on one side there is a great demand for aesthetics and on the other side there is a tremendous challenge to minimize the nosocomial infections. Nursing staff turnover is the major area of concern in any part of the world, which leads to increased need for repeated training & better surveillance. To minimize the risk of infection, nursing personnel should have adequate knowledge regarding nosocomial infections following admission and appropriate practice to control these infections.

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