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Winter 8-1-2018

A study to assess the effectiveness of an educational intervention on knowledge and practice of staff nurses on prevention of Ventilator Associated Pneumonia (VAP) in neonates of a selected Neonatal Intensive Care Unit of a tertiary care hospital.

DIPANJALI ROY

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"ABSTRACT

A research study “Effectiveness of an educational intervention on knowledge and practice of staff nurses on prevention of Ventilator Associated Pneumonia (VAP) in neonates of a selected Neonatal Intensive Care Unit of a tertiary care hospital” was carried out at Manipal Academy of Higher Education (MAHE), Manipal, by Dipanjali Roy for the award of Master of Science in Nursing as a partial fulfilment of the course.

The objectives of the study were to assess the knowledge of staff nurses working in NICU regarding prevention of VAP among neonates as measured by a structured knowledge questionnaire, to identify the practices adopted by the staff nurses for preventing VAP among neonates as measured by an observational checklist, to find the effectiveness of the educational intervention on knowledge of staff nurses regarding prevention of VAP among neonates and to find the effectiveness of the educational intervention on the practices of staff nurses to prevent VAP.

The conceptual framework for the study was based on Daniel L. Stufflebeam’s CIPP model: 2003. The study hypothesized that there will be a significant difference between the mean pre-test and post-test knowledge scores and practice scores of the staff nurses regarding prevention of VAP among neonates in a selected NICU of a tertiary care hospital, Udipi, Karnataka.

The tools used in this study were demographic proforma, structured knowledge questionnaire and observation checklist on VAP preventive practices. Content validity and reliability of the tool were established and all the tools were pre-tested. Pilot study revealed the feasibility of the study and permissions from all the relevant authorities were obtained prior to conducting the study. Data collection was done from the month of December 2017 to April 2018 at the Neonatal Intensive Care Unit of Kasturba Hospital, Manipal. The study sample comprised of 50 staff nurses of NICU. Data were analysed

using descriptive (frequency and percentage) and inferential statistics (Paired t-test, Wilcoxon sign rank test and Chi-square test) in SPSS version 16.0.

The results of the study showed that out of 50 total participants, majority 44(88%) of the participants were between the age group of 23-33 years. Majority of the participants 28(56%) were Diploma holders in Nursing. The years of work experience as a critical care nurse of majority of the staff nurses 42(84%) were ranging from 1-10 years. Only 3(6%) out of the 50 participants had previous training on prevention of VAP in CNE classes which were held 6 months before. Majority 47(94%) of the participants, were allotted 3 babies for care per shift. According to 5(10%) participants there is regular in-service education on prevention of VAP and 3 (6%) out of 5 participants said in-service education on prevention of VAP use to be held once in every 6 months and 2 (4%) said it use to be held once a year. Majority of the participants, 22 (44%) were not aware of the nonexistence of an organisational policy on VAP and its prevention in NICU.

In the pre-test, among the 50 participants under the study, majority of the participants 38(76%) had average knowledge in the pre-test. The mean pre-test knowledge score on prevention of VAP in neonates was 21.44 ± 3.06 . However, post-test knowledge score improved as majority of the participants 47(94%) had good knowledge. The mean post-test knowledge score on prevention of VAP among neonates was 30.26 ± 2.46 . ($p < 0.01$)

Out of 50 participants under the study, majority 38 (76%) had unsatisfactory practice prior to the exposure of the educational intervention on prevention of VAP in neonates. However, post-test practice score significantly improved as 49(98%) of the participants had satisfactory preventive practices. The educational intervention showed improvement in the knowledge and practice of the staff nurses as evidenced by the increase in mean scores from 21.44 ± 3.06 (pre-test) to 30.26 ± 2.46 (post-test) and from 20.94 ± 1.93 (pre-test) to 24.50 ± 1.53 (post-test) respectively. ($p < 0.01$)

The study concluded that regular educational or training programmes for the nurses should be implemented in the NICUs keeping in mind the hospital associated infections prevention goals which will in turn help the nurses to update their existing knowledge to bring out the best possible practice and care for the patients.

