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A study to assess the effectiveness of an educational intervention on knowledge and practice of peripheral intravenous catheterization by healthcare professionals (Nurses) among neonates of NICU's in selected hospitals of Udupi district, Karnataka.

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"ABSTRACT

A research study titled "A study to assess the effectiveness of an educational intervention on knowledge and practice of peripheral intravenous catheterization by healthcare professionals (Nurses) among neonates of NICU's in selected hospitals of Udupi district, Karnataka", was conducted by Ms. Jiji Mathew in partial fulfilment of the requirement for the award of Master of Science in Nursing at Manipal College of Nursing, Manipal, MAHE.

The objectives of the study were to assess the knowledge and practice of healthcare professionals (Nurses) regarding peripheral intravenous catheterization as measured by structured knowledge questionnaire and observational checklist and to evaluate the effectiveness of educational intervention.

The conceptual framework of the present study is based on Stufflebeams CIPP Model. The study hypothesized that there will be a significant difference between the pretest and posttest knowledge scores and practice scores on peripheral intravenous catheterization among healthcare professionals (Nurses) working in the Neonatal Intensive Care Unit.

The tools used for data collection were demographic proforma, knowledge questionnaire for healthcare professionals (Nurses) and an observational checklist was used for observing practices of peripheral intravenous catheter insertion, maintenance and removal by the healthcare professionals. Administrative permission was obtained from the Dean, Manipal College of Nursing Manipal, Medical Superintendent, Kasturba Hospital, Manipal, Professor, Head of the NICU, Kasturba Hospital,

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Manipal, Ethical clearance from Institutional Committee of Kasturba Hospital, Manipal.

Content validity and reliability of the tool were established and all tools were pretested. All tools were found to be reliable to be used for the study. Pilot study revealed the feasibility of the study. With the consent of participants, the data was collected from January 2018 to March 2018. The data gathered was coded and analyzed using SPSS 16.0 version. Both the descriptive and inferential statistics were used for identifying the results.

Among 40 healthcare professionals (Nurses), most 18(45%) of the participants belonged to the age of 26-30 years. Majority 22(55%) participants were GNM qualified and 12(30%) were B.Sc. (N) qualified and 6(15%) were Post Basic Nursing qualified. Majority 23(57.5%) had one to five years of experience, 10(25%) had more than five years of experience and 7(17.5%) had less than one year experience. Majority 38(95%) of the participants said that they have experience in caring a newborn with peripheral intravenous cannula. Only 16(40%) of the participants had attended IV infusion training programmes and 17(42.5%) had attended infection control training programmes.

The present study revealed that during pretest, most of the participants 14(35%) had good knowledge, majority 26(52.5%) had average knowledge and 5(12.5%) had poor knowledge on peripheral intravenous catheterization. In the posttest 10(25%) had excellent knowledge and 21(52.5%) had good knowledge, 9(22.5%) had average knowledge.

Out of 40 pretest observations of peripheral intravenous catheter insertion practices majority 26(65%) of the participants did not follow circular movement

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aseptic technique of site disinfection from center to periphery for cleaning the site. Most of the 10(25%) participants did not allow the area to dry before continuing the peripheral intravenous catheterization. Whereas in the posttest 27(67.5%) followed the circular movement aseptic technique of site disinfection from center to periphery for cleaning the site and 35(87.5%) participants allowed the area to dry before continuing the catheterization.

Out of 40 pretest observations of peripheral intravenous catheter maintenance practices, 19(47.5%) of the participants had not followed aseptic technique after the medication administration. In the post test observations, majority of the participants 28(70%) had followed the aseptic technique.

Out of 40 pretest observations of peripheral intravenous catheter removal practices 13(32.5%) of the participants have not used gloves for removal of peripheral intravenous catheter from the patient, whereas in the posttest 35(87.5%) of the participants used gloves for removal of peripheral intravenous catheter.

The Wilcoxon signed rank test revealed that educational intervention was effective in increasing the knowledge level ($Z = -5.520$ at 0.05 level of significance) and practice ($Z = -4.390$, $p = 0.009$ at 0.05 level of significance) on peripheral intravenous catheterization among healthcare professionals (Nurses).

The study was limited to a selected NICU of Udupi district, Karnataka. Hence, the findings cannot be generalized and practice may differ according to the hospital policy.

The study findings concluded that educational intervention was effective in improving the knowledge and practice among healthcare professionals (Nurses)."