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A study to assess the effectiveness of Comprehensive Nurse-Patient Strategy in caring Peripheral Intravenous Catheter (PIVC) and its indwelling period among the hospitalized patients in a selected hospital, Karnataka

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"ABSTRACT

A study to assess the effectiveness of Comprehensive Nurse-Patient Strategy in caring Peripheral Intravenous Catheter (PIVC) and its indwelling period among the hospitalized patients in a selected hospital, Karnataka was conducted by Mr Romeo Mathew in partial fulfillment of the requirements for the award of Master of Science in Nursing at Manipal College of Nursing Manipal, Manipal University.

The objective of the study was to assess the effectiveness of Comprehensive Nurse- Patient Strategy in terms of caring PIVC as well as in terms of its duration. The conceptual framework was based on Donabedian's Model of quality assurance.

A quasi experimental design was adopted for the research study. The subjects consisted of admitted patients who had undergone peripheral intravenous catheter insertion. Random sampling method was used to select areas as control and experimental wards for recruiting subjects. Recruitment of subjects was based on consecutive sampling.

Two data collection instruments, 'Demographic Proforma' and 'Observational tool to assess PIVC' were used in the research study. To ensure the content validity of the instruments, the instruments were submitted to seven experts. The instruments were pretested among five participants and the reliability was also established. The pilot study was conducted among ten subjects with peripheral intravenous catheter.

Administrative permission was obtained from the Dean, MCON Manipal, Medical Superintendent, Kasturba Hospital, Manipal and Chairperson Hospital Infection Control Committee, Kasturba Hospital, Manipal. Ethical committee clearance was obtained from

Institutional Research Committee as well as Institutional Ethics Committee. Informed consents from the subjects was also taken. The data were collected from the second week of January, 2016 onwards for three weeks. The data were analyzed using SPSS version 20.0 package. Descriptive as well as inferential statistics was used to analyze the data.

Majority, 17 (56.66%), of the patients were in the age group of 51-65 years in the experimental and the control groups. Both the experimental and the control groups have males as the predominant participant population, 27 (90%) and 22 (73%) respectively. The

greater part of the subjects (40% in the experimental group and 56.66% in the control group) had their education up to high school.

The majority of PIVC insertions in the experimental group (96.67%) and the control group (90%) were done with 20G cannula. Selection of vein among the experimental subjects was mostly cephalic vein (46.6%) followed by the dorsal metacarpal vein (20%) while in the control group it was dorsal metacarpal vein (40%) followed by cephalic vein (20%).

PIVCs of more than half (16, 53.33%) of the experimental subjects were flushed before drug administration while only 10% of the PIVCs among the control subjects were flushed. Flushing practice after drug administration was observed predominantly (60%) compliant among the experimental group whereas only 6.66% compliance was found among the control group.

The mean indwelling period of experimental and control groups in the present study were 76.6 hours and 52.87 hours respectively. The calculated mean difference was 23.73 hours. It was found that there exists a significant difference between the experimental and the control groups in terms of caring of PIVC ($P = .001$) and its duration ($P < .001$). It infers that

the intervention was effective in improving the indwelling period of the PIVC as well as caring of PIVC. Thus the study recommends the Comprehensive Nurse-Patient Strategy as measure to prolonged healthy stay of the PIVCs among the admitted patient

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