



EVALUATE THE EFFECTIVENESS OF AWARENESS PROGRAMME REGARDING PREVENTION OF CENTRAL VENOUS CATHETER (CVC) INFECTION AMONG STAFF NURSES IN SELECTED CHILDREN'S HOSPITALS AT BENGALURU

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ABSTRACT

The study involved pre - experimental one group pre-test and post-test research design, with Non probability purposive sampling technique. Information was collected from 50 staff nurses working in selected children's hospitals, using the structured knowledge questionnaire. Awareness program was administered and post test was conducted after 7 days using the same tool to find out the effectiveness. **Results:** The overall mean percentage knowledge score in the pre-test was 41.9% and 80.2% in the post-test. Enhancement mean percentage knowledge scores was found to be 38.3%. The statistical paired 't' test indicates that enhancement in the mean percentage knowledge score was found to be significant at 0.05% level for all the aspects under study. This study proved that there was not significant association found between pre test level of knowledge score and their selected demographic variables like age, gender, educational status, experience and Previous knowledge. Hence the research hypothesis H2 is rejected at 0.05% level ($P > 0.05$). The overall findings of the study clearly showed that there is knowledge deficit among staff nurses regarding prevention of CVC infection. The result has proved that awareness program was significantly effective in improving the knowledge of staff Nurses.

OBJECTIVES OF THE STUDY

- 1) To assess the existing knowledge regarding prevention of central venous catheter Infection among Staff Nurses by pre test knowledge score.
- 2) To evaluate the effectiveness of awareness programme on prevention of central venous catheter infection among staff nurses.
- 3) To find the association between pre test knowledge scores regarding prevention of central venous catheter infection with their selected demographic variables.

METHOD

1. Methods of data collection

Development of the tool

The tools used for the study was be, The tool selected for the study comprised of a structured knowledge questionnaire regarding prevention of CVC infection for staff Nurses who are working in IGICH at Bengaluru.

Selection of the tool

A Structured knowledge questionnaires is to assess the knowledge of staff Nurses regarding prevention of CVC infection.

Development of tool

The tool was developed through an extensive review of literature on related studies, books, journals articles and internet search, opinion of experts, in child health nursing, paediatrician, and guides.

Description of tool

The tool consists of structured knowledge questionnaire. It is divided into 2 parts, they are as follows:

Part I: The socio demographic data includes 6 items such as Age, gender, educational status, years of experience in nursing, area of working and previous knowledge on CVC infection.

Part II: The knowledge questionnaire consisted of 30 items.

- Meaning, definition and types of catheter (3 items)
- Indication of CVC (3 items),
- Sites and methods of insertion of CVC (4 items)
- Complications and infections of CVC (4 items)
- Management and prevention of CVC infections (16 items).

Scoring of the items

For knowledge items each correct answer was given a score of 'one' and wrong answer a score of 'zero'.

RESULT

Findings are summarized as follows

- The majority 40% of the respondents belong to the age group of 21-30, 38% of respondents belong to the age group 31-40 years, 16% of respondents belong to the age group 41-50 years and 6% respondents belong to the age group of 51 and above.
- The majority 40% of respondents are female, 10% of them are male.
- The majority (60%) of the respondents are GNM, 24% of them are Pc B sc and 16% of the respondents are B Sc Nursing.
- Majority 38% of respondents have 0-5 years, 30% of them have 6-10 years, 24% of respondents have 11-15 years, where as 8% of respondents have 16 years and above experience.
- Majority 36% of respondents were working in PICU, 32% of respondents were working in NICU, 20% of respondents were working in General ward and 12% of respondents were working in OT.
- The majority 45 (90%) of respondents has no previous knowledge and only 5 (10%) of respondents had previous knowledge through educational programme
- The aspect wise mean pre test knowledge score of respondents on prevention of CVC infection was found to be 22.53% with a SD 1.92258%. Further highest mean pre test knowledge regarding meaning, definition and types of CVC found to be (26.0%), followed by management and prevention of CVC infection (22.38%), and the least mean pre test knowledge score was found to be on Complication and Infections of CVC (21.50%).
- That overall mean post test knowledge was found to be 40.20% with a SD of 3.13252 on prevention of CVC infection. Further the data reveals that, the post test mean knowledge is highest for Management and prevention of CVC infection (42.13%), followed by Meaning, definition and types of CVC (38.67%), and the least mean post test knowledge score was found in Indication of CVC (37.33%).
- The majority (66.0%) of respondents had inadequate knowledge level as compared to remaining (34.0%) with moderate knowledge level in the pre test. Non of them had adequate knowledge.
- However, in the post test, majority (76.0%) of respondents have moderate knowledge level as compared to (14%) of respondents with adequate knowledge level and (10%) of respondents with inadequate knowledge level on prevention of CVC infection. the overall enhancement of mean value found to be (5.3) with a SD of 0.99. Further, the mean value enhancement of knowledge noticed highest in the last aspect of Management and prevention of CVC infection 3.16 with a SD of .525,

followed by Complication and Infections of CVC 0.664 with a SD of .0349. and however, the less enhancement of knowledge observed in the aspect of Meaning, definition and types of CVC 0.38 with a SD of 0.152.

- The statistical paired t-test reveals that the enhancement of mean knowledge from pre test to post test found to be significant ($p < 0.05$) in the knowledge aspect under study. There exists a statistical significance in the enhancement of knowledge score indicating the positive impact of awareness program regarding prevention of CVC infection.

Among the respondents Yes had 60% adequate knowledge and 40% had moderate knowledge. In No had 31.1% adequate knowledge and 68.9% had moderate knowledge.

The obtained chi-square value was found to be $DF=1$ ($\chi^2 = 1.674$, $P > 0.05$). So there is no significant association between previous knowledge and knowledge score. Hence research hypothesis is rejected.

INTREPRETATION AND CONCLUSION

The major finding of the study was summarized as follows

1. The result indicates that 40% of staff nurses were in the age group of 21-30 years, and 38% of them were in the age group 31-40 years and 16% of them were in the group 41-50 years and remaining 6% of them were in the group 51 and above.
2. Regarding gender majority 40 (80%) are females, and 10 (20%) were males
3. Regarding educational status majority 30 (60%) of the respondents are GNM, 8 (16%) are B Sc Nursing and 12 (24%) are Pc B Sc Nursing.
4. The result indicates that clinical experience of staff nurses 19(38%) had 0-5 years of experience, 15 (30%) had 6-10years of experience, and 12(24%) had 11-15 years of experience and only 4(8%) had 16 years and above of experience in the clinical area. A similar study was conducted in Orissa on assess the knowledge of staff nurses regarding intravenous catheter related infections. The data was collected by structured questionnaire and a structured teaching program is administered. The result revealed that most staff nurses who had more than 10 years experience gave the fully correct answer (64%). The partially correct answers were given by nurses who had 6-10 years of experience (28%). The incorrect answers were mostly given by the nurses who had less than 5 years of experience (8%).^[49]
5. The results implies that area of working, 10 (20%) of the staff nurses are working in General ward, 16 (32%) in ICU and 18 (36%) in PICU and 6(12%) in OT.
6. With regard to previous knowledge majority 45 (90%) of staff nurses has no previous knowledge

and only 5 (10%) of staff nurses had previous knowledge through educational programme.

CONCLUSION

The present study assessed the effectiveness of awareness programme among staff nurses regarding prevention of cvc infection.

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