

Effectiveness of structured teaching programme on knowledge regarding care bundles among Nursing students of a selected Nursing institution at Eastern Uttar Pradesh.

Smitha Thomas

Associate Professor
CON, CH(CC)
Lucknow, India

Abstract-Care bundles are proven and time-tested evidence-based interventions, which considerably decreases the incidence of nosocomial infections and thereby morbidity and mortality. Though it is being implemented in most of the hospitals, the rate of nosocomial infections still continues to be high. Moreover, it is formally not included in the nursing curriculum till now and the nursing student learns and practices it only in the clinical areas.

Objective- The study aimed to assess the effectiveness of structured teaching programme on the knowledge regarding care bundles among Nursing students. Find association of pre-test score with selected socio-demographic variables.

Methods-A quantitative quasi experimental study was conducted among 100 students. Stratified random sampling was used to recruit study samples. Data was collected using a structured questionnaire and analysed using SPSS

Results- The mean Pre STP-knowledge score was 16.33 ± 2.41 and mean post STP knowledge score was 20.92 ± 2.38 . The calculated t value was 13.5514 which was statistically highly significant at a p- value of < 0.0001 . There was a significant association between pre STP knowledge score and the year of study of students.

Conclusion-Structured Teaching Programme on care bundles increases the knowledge of Nursing students and classes and demonstration should be done before the clinical learning/experience.

Key Words- Structured teaching programme, care bundles, effectiveness, knowledge, nursing students

INTRODUCTION

Care bundles were introduced in 2001 with an attempt to decrease Health care associated infection. Even after 20 years, it is not uniformly adhered to and so the HAI (Health Care Associated Infection) rates still continues to be high¹. Implementing care bundles reduces morbidity and mortality in patients and also is an important determinant in hospital accreditation. Nursing students are actively involved in the patient care activities and learn about care bundles only in the clinical areas. Despite implementing Care bundles, the parent hospital has moderate annual incidence of HAI rates. This may be due to various factors like lack of awareness regarding Care bundles, increase work load, lack of organizational support or material availability.

MATERIAL AND METHODS

This quasi-experimental study was conducted among the II, III- & IV-year BSc Nursing students of a Nursing Institute in Eastern Uttar Pradesh during June to Aug 2022. Students who had exposure to critical care area with an opportunity to care for critically ill patients was included in this study. I Year BSc Nursing students were excluded as they have only Nursing Foundation as the Clinical Subject and will be providing only basic care to patients.

The research design adopted for the study is quantitative quasi experimental study with one group pretest -post-test design. A total of 100 students were enrolled for the study by stratified random sampling. A structured questionnaire was developed to collect their basic demographic characteristics and knowledge regarding care bundles- components and benefits. The questions were close ended. Validity of the tool was established by experts and content validity Index. The collected data was tabulated in a master sheet and analyzed using descriptive and inferential statistics.

Before the start of the study, the purpose was explained to the study participants and consent taken. Willing participants were randomly selected from each batch. Ethical clearance was taken from the Institutional ethical committee. A structured questionnaire was administered to the students. Following the assessment, a Structured teaching Programme was conducted using appropriate audio-visual aids. Reassessment was carried out after 10 days.

RESULTS

Socio- demographic characteristics

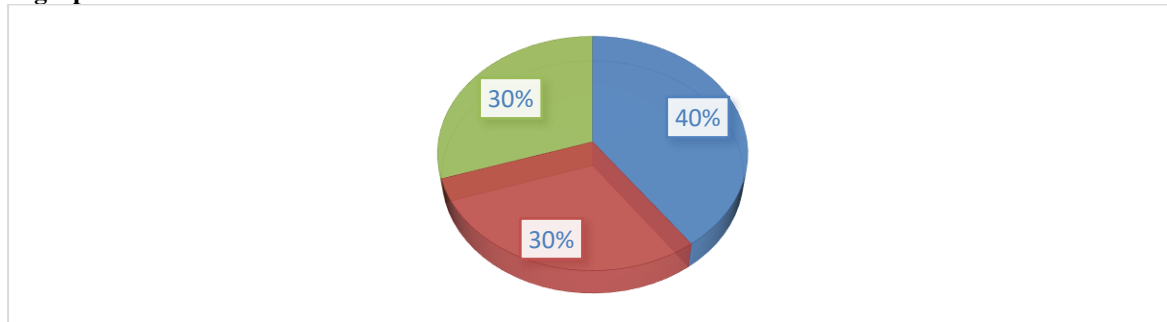


Fig 1. Distribution of samples according to year of training

Fig 1 shows that majority (40%) of students were from II Year BSc Nursing and 30% each was from III BSc and IV BSc Nursing batches.

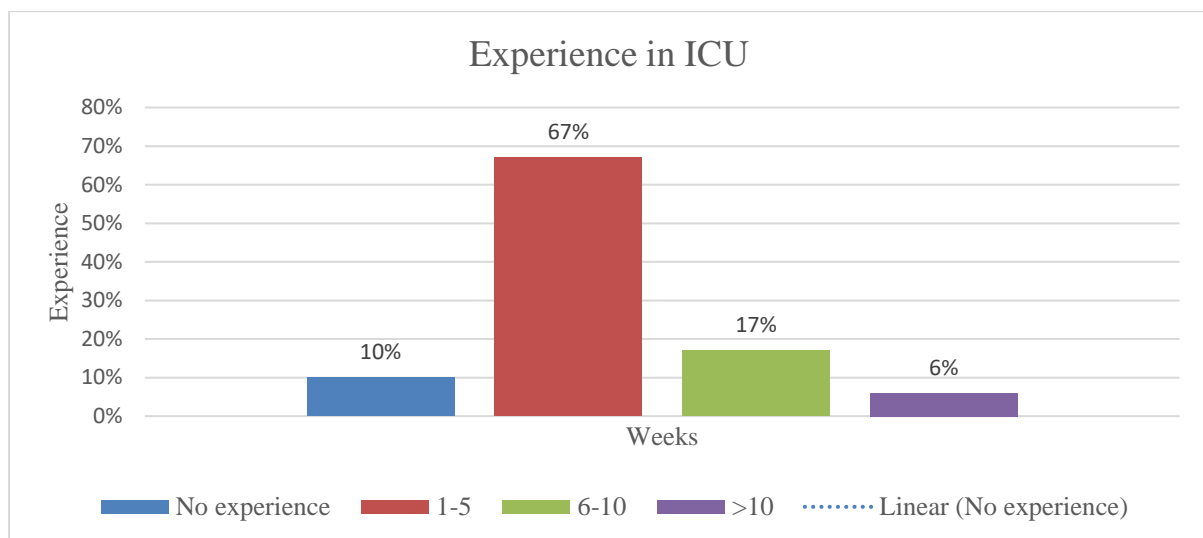


Fig 2. Distribution of samples according to exposure to critical care unit

Fig 2 shows that 67% of the nursing students have one to five weeks of ICU experience, 17% have 6 to 10 weeks of experience, 10% of the nursing students possess no exposure in ICU and 6% of the students have more than 10 weeks of ICU experience.

Knowledge Score

Table 1: Distribution of students according to Pre STP-Knowledge Score

n=100

Score	II Year BSc(N)	III Year BSc(N)	IV Year BSc(N)	Total
0-9 (poor)	-	01	-	01
10-19(average)	34	27	28	89
20-29(good)	06	02	02	10
Total	40	30	30	100

Table 1 shows that majority (89%) of students scored only average in the Pre STP-knowledge test

Table 2: Distribution of students according to Post STP Knowledge Score

n=100

Score	II Year BSc(N)	III Year BSc(N)	IV Year BSc(N)	Total
10-19(average)	11	03	11	25
20-29(good)	29	27	19	75
Total	40	30	30	100

Table 2 shows that majority (75%) scored good score in the knowledge test

Table 3: Correlation between pre and post STP Knowledge Scores

n =100

Mean Pre STP knowledge score ± SD	Mean Post STP Knowledge score ± SD	t value	P value
16.33±2.41	20.92±2.38	13.5514	< 0.0001

Table 3 shows that the mean pre STP knowledge score is 16.33±2.41 ie; the pre STP knowledge score varies from 18.74 to 13.92. The mean post STP knowledge score is 20.92±2.38. ie; the post STP knowledge score lies in the range of 23.30 to 18.54. The calculated t value is 13.5514 which is highly statistically significant at a p- value of < 0.0001.

Table 4: Association of knowledge score with selected demographic variables

n=100

Knowledge score	IV BSc (N)	III BSc (N)	II BSc (N)	Chi square value	P value
Average	28	28	34	1.8519	0.396164
Good	2	2	6		

Table 4 shows that among the demographic variables accounted, the level of knowledge was significantly associated with the year of training. The statistical findings of the present study proved that the calculated value of chi square is 1.8519 which is not statistically significant at a p value<0.05. This may be attributed to the small sample size in the present study.

DISCUSSION

In the pre STP knowledge test, majority of the Nursing students had only average level of knowledge regarding care bundles .After the STP, the knowledge had increased and majority of them had good knowledge. Similar findings were brought out by a study conducted by Mishra R and Rani N who studied the effectiveness of STP on knowledge and practice regarding care bundle on prevention of VAP among Nurses in a tertiary care hospital. The study found that there was a noticeable increase in knowledge and practice score in post-test after implementation of structured teaching program as compared to pre-test score, indicating the effectiveness of structured teaching Program on care bundle regarding the prevention of ventilator-associated pneumonia.⁸ Another study conducted by Degavi G, Damalli V, Jevoor P to assess the effectiveness of structured teaching programme on selected aspects of Hospital Acquired Infections at KLE University's institute of Nursing sciences , Karnataka . The Pre- test and Post test frequency and percentage of knowledge scores of subjects regarding HAI s revealed pretest (60%) subjects (BSc Nursing students) had inadequate knowledge (40%) had moderate and (00%) had adequate knowledge whereas in Post test all the subjects (100%) had good knowledge scores.⁹

Sagare A, Tata S, Philip SE et al conducted a study in Maharashtra (2018) to assess the effectiveness of STP regarding protocol on standard precautions for the prevention of infection in terms of knowledge and practice among staff nurses. The result of the study showed that after structured teaching programme there is significant improvement in the scores of knowledge by 13(43.3%) to 19(63.3%) scored in range of good and 13(43.3%) to 7(23.3%) scored in the range of average. Regular education programs on infection control, standard and transmission-based precautions and ward-based teaching programmes on various care bundles must be included. Similar results were also shown by Degavi G, Damalli V, Jevoor P who studied the effectiveness of structured the teaching programme with paired t test revealed significant gain in knowledge at 0.05 level. The study strongly suggests that it is very important to enhance the knowledge of student nurses to prevent and control hospital acquired infection.⁹

CONCLUSION

Majority of the students had only average knowledge score before the implementation of STP which later increased to good level post STP. Training of students in a care -bundles will go a long way in decreasing HAI. The learning can be made more permanent if STP can be followed by OSCE sessions and individual rubric-based debriefing.

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CONFLICTS OF INTEREST

There are no conflicts of interest

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