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Original Article

Study to Assess the Effectiveness of Planned Teaching Programme On Knowledge Regarding Prevention of Cesarean Section Wound Infection Among Final Year Students of Selected B.Sc. Nursing Colleges at Udaipur

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Abstract

Introduction: Caesarean wound infection is a major cause of prolonged hospital stay, high hospital bills, as well as other morbidities and mortality. Caesarean wound infection is a major cause of prolonged hospital stay, high hospital bills, as well as other morbidities and mortality.

Materials & Methods: Quasi experimental pre-test, post- test design. The study will be conducted in selected BSc nursing colleges at Udaipur. Convenience sampling technique will be used. Sample size – 60

Results: The finding of the study with regard to pre-test knowledge assessment revealed that the mean percentage was 17.20 (47.8%) and SD was 3.5 (9.6%). In posttest, significant increase in knowledge was found. However, in posttest the mean percentage of knowledge was 30.25 (84 %) and SD was 4.3 (12%).The statistical paired't' implies that the difference between pre-test andpost-testknowledge score found statistically significant at 5% ($p<0.05\%$) with a paired't'value of 18.38 *.This reveals statistical significance in the enhancement of knowledge score indicating the significant impact of planned teaching program.

Conclusions:There was no association with the pre-test knowledge scores and selected demographic variables except gender, previous academic performance, place of residence and educational status ofmother.

Keywords: Cesarean section, infection, prevention, final year B.Sc nursing students, PTP

Introduction:

Infection in obstetrics accounts for the second most common cause of maternal mortality next to postpartum hemorrhage. Among surgical patients in obstetrics, surgical site infections (SSIs) are the most common nosocomial infections, accounting for 38% of the hospital acquired infections.The infectious morbidity is the most common complication following cesarean section with reported rates ranging from 18% to 83%.5 The risk of postpartum infection seems to be nearly 5-fold increased after cesarean section compared with vaginal birth. Recovery from Caesarean section is more difficult for women who develop postoperative wound infection.

In the absence of prophylactic antibiotics, the rates of postpartum endometritis can be as high as 35% to

40%.The predominant pathogens for cesarean wound infection are E coliand Enterococcusspecies.

Signs of cesarean wound infection are redness or excessive swelling in the wound, throbbing pain or tenderness in the wound area, generalized chills or fever, discharge of pus, foul odor from wound, uterine tenderness, offensive lochia, etc.Client must adequately counseled about the risk of infections and taught to recognize sign and symptoms and to seek medical attention promptly if they occur. The most important preventive measure is frequent and through hand washing by all health personnel in the hospital.

The infectious morbidity is the most common complication following cesarean section with reported rates ranging from 18% to 83%. The risk of postpartum infection seems to be nearly 5-fold increased after cesarean section compared with vaginal birth. Recovery from Caesarean section is more difficult for women who develop postoperative wound infection.

Objectives

1 To assess pretest knowledge scores of the subjects regarding prevention of cesarean section wound infection.

2 To conduct planned teaching programme on prevention of cesarean section wound infection.

3 To evaluate the effectiveness of PTP by comparing the pretest and post test scores among final year students of selected BSc Nursing colleges at Udaipur.

4 To determine theassociation between post-test knowledge scores with selected demographic variables of the subjects

Hypothesis

H_1The mean posttest score of knowledge on prevention of caesarean section wound infection will be significantly higher than the mean pre-test score among students.

H_2 There will be significant association between pre-test and post-test score of the knowledge of the students.

H_3 There will be significant association between post test score of knowledge of students regarding prevention of caesarean section wound infection with selected demographic variables.

Material &Methods: The data will be collected from final year students of selected BSc nursing colleges at Udaipur Quasi experimental pre-test, post- test design. The study will be conducted in selected BSc nursing colleges at Udaipur. Convenience sampling technique will be used. Sample size – 60

Research approach: Descriptive approach was needed to assess the knowledge of final year B.Sc nursing students adolescent on prevention of cesarean section wound infection . Evaluative approach was used to test the effectiveness of PTP prepared on prevention of cesarean section woundinfection.

Research design: The research design selected for the present study is Quasi experimental research design where pre and post- test without control group approach was used to assess the effectiveness of PTP on prevention of cesarean section wound infection among final year BSc nursing students of selected College of Nursing, Udaipur.

Population: population comprised of final year students of Kalpataru college of BscNursing, Udaipur

Sample size: The sample comprised of 60 students who are studying in final year B.sc Nursing.

Sampling technique: The sample was collected by using Simple random sampling technique from selected BSc nursing college at Udaipur

Sample selection criteria of the study:

Inclusion criteria:

Female students who are:

1. Students who were studying in final year of selected B.Sc nursing colleges at Udaipur.
2. Students who were willing to participate in the study.
3. Students who were available during the time of data collection.

Data Collection Tool:

Development of planned teaching programme:

Data collection tools are the procedures or instruments used by the researcher to observe or measure the key variables in the research problem

- Baseline performais used to collect the baseline information from selected B.Sc nursing students.
- A self-administered knowledge questionnaire on prevention of cesarean wound infection is used to collect data.

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Development of the tool

A close ended questionnaire was prepared to assess the effectiveness of PTP on knowledge regarding prevention of cesarean section wound infection among final year B.Sc nursing students.

The tool was prepared on the basis of the objectives of the study.

Description of the tool

A close ended questionnaire was constructed in 2 parts with total number of 36 items.

Part I : Includes items related to the demographic data, which consists of 12 items

Part II : Includes knowledge regarding prevention of cesarean wound infection which is again divided into:

Section A – Contains 15 items on knowledge regarding cesarean wound infection

Section B – Contains 9 items on standards for prevention of infection

Section C - Contains 12 items on strategies for prevention of cesarean wound infection

Exclusioncriteria:

FemaleStudents of 1st,2nd and 3rd year of selected BSc nursing colleges at Udaipur

Tool reliability:

Split half method was used, which measures the coefficient of internal consistency. The reliability of the split half test was found by using Karl Pearson's product moment correlation formula. Spearman brown prophecy formula was used to find out the reliability of the full test. The reliability of the tool was found to be (r =0.9389) which indicated the tool was reliable.

Results: Under the below finding result will draw

Table 01: Aspect wise Pre-test Mean Knowledge scores of Respondents on Prevention of Cesarean Section Wound Infection

N=60

No.	Knowledge Aspects	Statements	Max. Score	Respondents Knowledge			
				Mean	SD	Mean(%)	SD(%)
I	Caesarean wound infection	1 5	15	8.20	1.6	54.7	10.4
II	Standards for prevention of infection	9	9	3.12	1.4	34.6	15.3
III	Prevention of caesarean wound infection	1 2	12	5.88	2.0	49.0	16.4
	Combined	**3 6**	**36**	**17.20**	**3.5**	**47.8**	**9.6**

Table 02: Aspect wise Post-test Mean Knowledge scores of Respondents on Prevention of Cesarean Section Wound Infection

N=60

No.	Knowledge Aspects	Statements	Max. Score	Respondents Knowledge			
				Mean	SD	Mean(%)	SD(%)
I	Caesarean wound infection	15	15	13.10	1.9	87.3	12.5
II	Standards for prevention of infection	9	9	7.18	1.5	79.8	16.8
III	Prevention of caesarean wound infection	12	12	9.97	2.0	83.1	16.5
	Combined	**36**	**36**	**30.25**	**4.3**	**84.0**	**12.0**

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Table 03 : Over all Pre-test and Post-test Mean Knowledge on Prevention of Cesarean Section Wound Infection

N=60

Aspects	Max. Score	Respondents Knowledge				
		Mean	SD	Mean (%)	SD (%)	
Pre test	36	17.20	3.5	47.8	9.6	
Post test	36	30.25	4.3	84.0	12.0	18.38*
Enhancement	36	13.05	5.5	36.3	15.3	

*** Significant at5%level,** **t (0.05,59df) =1.96**

Table 04: Aspect wise Mean Pre-test and Post-test Knowledge on Prevention of Cesarean Section Wound Infection

N=60

No.	Knowledge Aspects	Respondents Knowledge (%)						Paired 't' Test
		Pre test		Post test		Enhancement		
		Mean	SD	Mean	SD	Mean	SD	
I	Caesarean wound infection	54.7	10.4	87.3	12.5	32.7	17.2	14.73*
II	Standards for prevention of infection	34.6	15.3	79.8	16.8	45.2	23.3	15.03*
III	Prevention of caesarean wound infection	49.0	16.4	83.1	16.5	34.0	19.9	13.23*
	Combined	**47.8**	**9.6**	**84.0**	**12.0**	**36.3**	**15.3**	**18.38***

***Significant at5%level,** **t (0.05,59df) =2.571**

Table 05: Association between Demographic variables and Post-test Knowledge level on Prevention of Cesarean Section Wound Infection

Demographic Variables	Category	Sample	Respondents Knowledge				Value	P Value
			Moderate		Adequate			
			N	%	N	%		
Age (years)	20	26	8	30.8	18	69.2	0.17 NS	P>0.05
	21	22	8	36.4	14	63.6		
	22	12	4	33.3	8	66.7		
Gender	Male	21	11	52.4	10	47.6	5.28*	P<0.05
	Female	39	9	23.1	30	76.9		
Previous Academic Performance (%)	51-60	17	8	47.1	9	52.9	6.00*	P<0.05
	61-69	34	12	35.3	22	64.7		
	70+	9	0	0.0	9	100		
Exposed to Previous knowledge	Yes	44	16	36.4	28	63.6	0.68 NS	P>0.05
	No	16	4	25.0	12	75.0		

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Source of Information	Academic information	37	11	29.7	26	70.3	6.39 NS	P>0.05
	Self-searching	2	0	0.0	2	100		
	Family members/Relatives	5	2	40.0	3	60.0		
	Internet	7	5	71.4	2	28.6		
	No	9	2	22.2	7	77.8		
Religion	Hindu	19	6	31.6	13	68.4	0.15 NS	P>0.05
	Muslim	22	7	31.8	15	68.2		
	Christian	19	7	36.8	12	63.2		
Place of Residence	Rural	37	8	21.6	29	78.4	5.96*	P<0.05
	Urban	23	12	52.2	11	47.8		
Type of family	Nuclear	53	18	34.0	35	66.0	0.08 NS	P>0.05
	Joint	7	2	28.6	5	71.4		
Educational status of Father	Middle	16	6	37.5	10	62.5	1.42 NS	P>0.05
	Secondary	19	5	26.3	14	73.7		
	PUC	14	4	28.6	10	71.4		
	Graduate	11	5	45.5	6	54.5		
Educational status of Mother	Primary	12	5	41.7	7	58.3	7.80 NS	P>0.05
	Middle	9	6	66.7	3	33.3		
	Secondary	18	3	16.7	15	83.3		
	PUC	13	3	23.1	10	76.9		
	Graduate	8	3	37.5	5	62.5		
Family Income/month	<Rs.5000	12	4	33.3	8	66.7	0.09 NS	P>0.05
	Rs.5000-10000	16	5	31.3	11	68.7		
	Rs.10000-20000	24	8	33.3	16	66.7		
	>Rs.20000	8	3	37.5	5	62.5		
	Yes	33	7	21.2	26	78.8		
	No	27	13	48.2	14	51.8		
		60	20	33.3	40	66.7		

***Significant at5%Level,** **NS :Non-significant**

Conclusions

To assess the effectiveness of PTP on prevention of cesarean section wound infection among final year BSc nursing students, the study was conducted in one group pre-test and post-test design with evaluatory approach by taking 60 samples through simple random sampling technique at selected nursing colleges at Udaipur. Structured knowledge questionnaire was used to collect data and it was analyzed and interpreted by applying descriptive and inferentialstatistics.

Recommendations:

Based on the findings of the study the following recommendation are stated: -

- A similar study can be replicated on a large sample thereby findings can be generalized.
- A similar study can also be undertaken with a control group design.
- A comparative study can be done to the final year BSc nursing students studying in rural and urban areas.
- A experimental study can be under taken to validate and standardize the Planned Teaching Program.
- A similar study can be made to compare the effectiveness of Planned Teaching Program with other methods of teaching.

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Conflict of Interest: There are no conflicts of interest

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