https://doi.org/10.65829/rvcn2022.1005

RV JOURNAL OF NURSING SCIENCES
VOLUME5|ISSUE 1|JANUARY-MARCH 2026 E-ISSN No. 2583-472X
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A Study to Assess the Effectiveness of Planned Teaching Programme (PTP) On Knowledge Regarding Blood Transfusion and Its Complications Among 3rd Year GNM Students Studying in Selected Schools of Nursing, Hassan

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ARTICLEINFO

Article history:
Received 3 November 2025
Received in revised form 20 December 2025
Accepted 24 December 2025

Keywords: knowledge, blood transfusion, complications, structured teaching programme.

ABSTRACT

Blood transfusion is a vital part of modern medicine. It is necessary to replace acute blood loss following an injury or in the course of a surgical operation. To treat severe anemia for instance when individuals cannot make blood for themselves.

A quantitative research approach was conducted to determine the effectiveness of structured teaching program on knowledge regarding blood transfusion and its complications among 3rd year GNM students in selected schools at Hassan. by using one group of pre-test and post-test research design. 60 3rdyear GNM students were selected non-probability convenient sampling technique method. The pretest knowledge score was 39.89 % and mean score is 13.86 % and posttest knowledge score was 81.40 % and the mean score is 28.83%and enhancement mean were 41.51%. The paired t- value [t=52.85 DF=59] hence there is a significant difference between pretest and posttest knowledge score regardingblood transfusion and its complications among 3rd year GNM students in selected schools at Hassan. The significance was measured at 0.05 level. There was a significant association between the age of the students and no significant association between gender, religion, place of residence, educational status, previous information regarding blood transfusion and its complications, and source of knowledge in the pretest knowledge related toblood transfusion and its complications.

Introduction

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World Health Organization (WHO) states that a blood transfusion is the transfer of blood or blood products from one person (donor) to another person's bloodstream (recipient). This is usually done as a life saving maneuver to replace blood cells or blood products lost through severe bleeding, during Surgery when blood lost occur or to increase the blood count in an anemia patient[1].Blood transfusion may have complications like reactions, transmission of viruses and infectious diseases fever, iron overload, lung injury, reactions from receiving the wrong blood type, and immune system problem.[2]

The articlestated that blood transfusion therapy can save and enhance patient's lives but careful consideration must be given to the associated dangers. Nurses must have the skills and knowledge required to care for patients receiving blood components. It is important for nurses to understand the correct and safe way to approach transfusion practice as it is a constant and central component of modern health care. The number of people eligible to donate blood is reducing and each blood component comes from a donation given in good faith: it is given voluntarily with the expectation that it will be used effectively for the benefit of patients. Therefore at every stage of the transfusion process the nurse is responsible for the part they play in making sure that the correct patient receives the correct blood and also that blood components are used and handled with care[3].

A prospective survey was conducted in Belgium on Bedside errors. The findings of the study showed transfusion of a wrong unit as a major error and poor execution or documentation as a recording error. Over 15 months, 808 patients, out of 1448 were transfused 3485 units. A total of 165 errors were found after blood products had left in the blood banks. Seven were misidentified, (10.74% of patients 0.2% of units). Eight other major errors occurred in 4 (0.5%) patients. The remaining 150 errors consisted of misreporting (61), mislabeling (6), or failure to document transfusion in the medical errors (83). The study concluded that concerned staff people should provide the force to take adequate measures to reduce these bed side errors [4].

Methodology

Research methodology is a way of systematically solving the research problems. It explains the steps that are generally adopted by a researcher in studying the research problem along with the logic behind them. It includes steps, procedures and strategies for gathering and analyzing the data in research investigation.

Quantitative research approach is adopted for the present study. Based on the geographical proximity, feasibility of conducting the study and availability of the samples. The present study was conducted in Rajeev School of nursing, Hassan.

Objectives of the study

1. To assess the level of knowledge on blood transfusion and its complications among 3rd Year GNM students before and after administration of PTP.
2. To find out the effectiveness of PTP on knowledge regarding blood transfusion and its complications among 3rd year GNM students.
3. To find the association between selected socio-demographic variables with their pre test knowledge score regarding blood transfusion and its complications among 3rd Year GNM students.

Research hypothesis

H_1-There will be a significant difference between pretest and posttest knowledge scores of 3rd year GNM students regarding blood transfusion and its complications.

H_2-There will be a significant association between pretest knowledge score and selected socio-demographic variables.

Setting

The present study was conducted in Rajeev School of nursing, Hassan.

Sample

Sample consists of a sub set of a population selected to participate in a research study.

Hassan were taken as sample for the study.

Sample size

The sample size of present study consists of 60 3rd year GNM students.

Criteria for sample selection

Inclusion Criteria:

The study includes 3rd year G N M students studying in selected schools of Nursing at Hassan.

1. Those who are willing to participate in the study
2. Those who are available during the study period.

Exclusion Criteria:

The study excludes 3rd year G N M students who are not willing to participate.

The samples of the research were the 3rd year GNM students from selected school of nursing,

1. Those who are absent on the day of data collection.

Sampling technique

The sampling technique adopted for the study Was Non-probability convenient sampling technique.

Recommendations

The investigator emphasizes on the following suggestions:-

- Nurse should update their knowledge constantly in order to educate subjects.
- Nurse can conduct the periodic awareness programme and training programme for students at nursing schools regarding blood transfusion and its complications.

Results:-Pretest Knowledge Scores Of 3rd Year GNM Students On Blood Transfusion And Its Complications.

Table-1: Level of Pretest Knowledge N=60

Grade	No.of 3rd year GNM students	%
Inadequate	51	85
Moderate	09	15
Adequate	0	0
Total	60	100

Figure 2: SIMPLE CYLINDRICAL DIAGRAM SHOWING PERCENTAGE DISTRIBUTION OF THE SUBJECTS ACCORDING TO PRE TEST KNOWLEDGE LEVEL. (N=60)

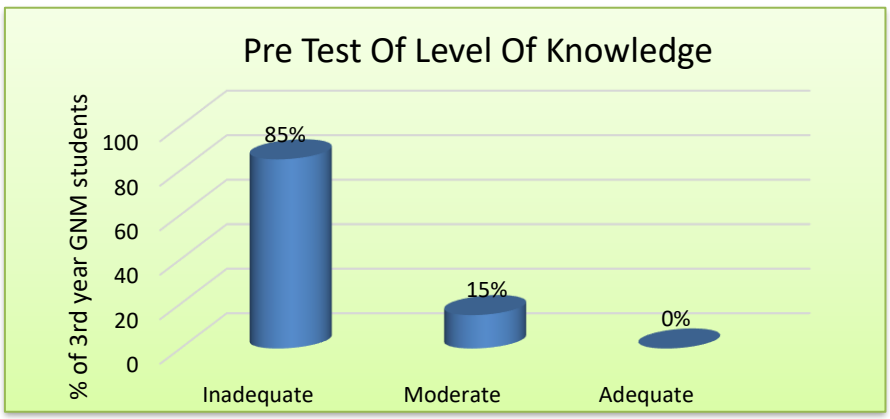

TABLE-2: Aspect wise pretest knowledge scores of 3rdyeargnm students on blood transfusion and its complication. (N=60)

No.	Knowledge Aspects	Statements	Max. Score	Respondents Knowledge		
				Mean	SD	Mean(%)
I	General information	11	11	4.46	1.00	40.54
II	Procedure	13	13	5.15	1.50	39.61
III	Complications	11	11	4.35	1.26	39.54
	Overall	35	35	13.96	3.76	39.89

Level of Post Test Knowledge **N**=60

Grade	No.of 3rd year GNM students	%
Inadequate	0	0
Moderate	15	25
Adequate	45	75
Total	60	100

Section:2

Comparison Of Pre Test And Post Test Knowledge Scores.

N = 60

No.	Knowledge Aspects	Respondents Knowledge score				Paired 't' Test
		Pre test		Post test		
		Mean	SD	Mean	SD	
I	General Information	4.46	1.00	8.66	1.51	t= 18.26**
II	Blood transfusion procedure	5.15	1.15	10.68	1.84	t=19.82**
III	complications	4.35	1.26	9.13	1.02	t=20**
	Overall	13.96	3.41	28.47	4.37	t=20.32**

Comparison of Pretest and Posttest Knowledge Scores.

N = 60

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		Pre test		Post test		
		Mean	SD	Mean	SD	
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II	Blood transfusion procedure	5.15	1.15	10.68	1.84	t=19.82**
III	Complications	4.35	1.26	9.13	1.02	t=20**
	Overall	13.96	3.41	28.47	4.37	t=20.32**

*Significant at p≤0.05,**highly significant at p≤0.01 ***. df=59

The above table shows comparison of pre and posttest knowledge score among the 3rd year GNM students. The difference between pre and post knowledge score are tested by using peridotites and found highly significant in all the aspects.

Association Between Knowledge Score And Selected Socio Demographic Variables

Demographic Variables		Pretest				Chi square test
		Inadequate		moderate		
		N	%	n	%	
Age	20 – 22yrs	45	86.53	7	13.46	x2= 29.65** Significant
	23 – 25yrs	6	75%	2	25%	
	26 & above	0	0%	0	0%	
Sex	Male	01	50%	01	50%	x2= 1.98 NS
	Female	50	86%	03	13.79%	
Education status	P U science	0	0%	0	0%	x2= o.23

	P U arts	43	86%	07	14%	NS
	P U commerce	08	80%	02	20%	
	Vocational course	0	0%	0	0%	
Religion	Hindu	45	86.53%	07	13.46%	x2= 2.02 NS
	Christian	04	66.66%	02	33.33%	
	Muslim	02	100%	0	0%	
Area	Urban	40	86.95%	06	13.04%	x2= 0.58 NS
	Rural	11	68.57%	03	27.27%	
	Semi urban	0	0%	0	0%	
Previous information regarding blood transfusion and its complications	Yes	44	84.61%	08	15.38%	x2= 0.03 NS
	No	07	87%	1	12.5%	
Source of information	Mass media	04	100%	0	0%	x2= 2.93 NS
	Formal education	32	80%	08	20%	
	Conference	0	0%	0	0%	
	Journal/magazine	07	87%	01	12.5%	
	No information	08	100%	0	0%	

*****Significant at P≤0.05**, S-Significant, NS-Not Significant

The data Presented in the above table for pre test indicate that the Chi-square values of demographic variables like Sex, Religion, Residence, Educational Status & Source of information are not significant at 0.05 level of significant. On the contrary the chi-square values of Age. is significant at 0.05 level of significant. Thus it is concluded that there is a significant association between pretest knowledge score of 3rd year

GNM students and with their socio-demographic variables hence we accept the research hypothesis H2. The observational, cross-sectional and quantitative study was conducted to carry out at a large general teaching hospital. The sample consisted of 209 nursing professionals, obtained by simple random sampling. For data collection, a checklist was used. In the univariate analysis, descriptive statistics and central trend and dispersion measures were used. In the bivariate analysis, Student's t-Test, analysis of variance and Pearson's correlation were used. To determine the predictors, multiple linear regression was applied. The Institutional Review Board (Opinion number 2434) approved the study. The overall average knowledge score was 52.66%; in the Pre-transfusion Step, it corresponded to 53.38%; in the Transfusion Step 51.25% and, in the Post-transfusion Step, 62.68%. The factors related to knowledge were professional category and received training and/or guidance to accomplish the transfusion process ($p<0.01$) this study showed the influence of training and guidance on the knowledge and provided a diagnosis to identify the professionals' difficulties regarding the transfusion process [5]

Conclusion

The 3rdyear GNM students gained knowledge about blood transfusion and its complications. They gave free and frank responses regarding towards preventing blood transfusion complications. From the data analysis and findings of the present study it is concluded that there was significant differences between the pre test and post test knowledge scores.

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