



**A STUDY TO ASSESS THE EFFECTIVENESS OF SELF-INSTRUCTIONAL  
MODULE ON KNOWLEDGE AND PRACTICE REGARDING BLOOD  
TRANSFUSION AMONG STAFF NURSES IN SELECTED HOSPITAL AT JAIPUR  
CITY RAJASTHAN**

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**ABSTRACT:**

**Introduction:** Life begins not at the time of fertilization or conception but when blood first appears in the embryo, at about 20 days following conception. Blood is a specialized bodily fluid in animals that delivers necessary substances such as nutrient and oxygen to the cells and transports metabolic waste products and carbon dioxide away from those same cells.

**Material and Method:** The sampling technique used to choose the subject was by purposive sampling technique. Non-probability purposive sampling technique was used. The sample comprised of 60 staff nurses.

**Result:** The mean post test knowledge score is higher than mean pretest knowledge score of staff nurse regarding blood transfusion. The calculated value of 'z' is 13.604 at the 0.05 level of significance and the tabulated value of 'z' is 1.671 at the 0.05 level of significance on 58 degree of freedom

**Conclusion-**it is concluded that the level of knowledge regarding this study focused to assess the knowledge of staff nurses regarding blood transfusion procedure was insufficient.

**Keyword:** Assess, Effectiveness, Knowledge, Practice, Blood transfusion

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## INTRODUCTION:

### “Blood is that fragile scarlet tree we carry within us”

In human life blood are travel by vessels (artery and veins) it consists 8% of total body weight. The average adult has a blood volume of 5 litter and Blood pH is regulated to stay within the narrow range of 7.35 to 7.45, making it slightly alkaline. Blood are composed of several kinds of cells plasma and, Cells these formed 45% elements of blood are erythrocytes (Red blood cells RBC's) it constitute about 45% of whole blood, leukocytes (White blood cells) about 0.7%, and thrombocytes (platelets) about 54.30%.Plasma these formed about 55% of blood .it is straw-yellow color. The blood plasma volume total of 2.7-3.0 litter in an average human.It's containing 92% water and 8% blood plasma protein and trace number of other materials. Plasma circulates dissolved nutrients, such as glucose, amino acids and fatty acids.

### Other important components include:

- Serum albumin
- Blood –clotting factors (to facilitate coagulation)

- Immunoglobulin particles
- Lipoprotein particles
- Various other proteins
- Various electrolytes (mainly sodium and chloride)

land Steiner discovered two distinct chemical molecules on the surface of red blood cells. He called one 'A' and the other 'B', sometimes the blood had only 'A' or 'B' molecule and in other cases, he saw a mixture of both. He called this mixture type 'AB'. In more rare instances, he saw neither molecule 'A' nor 'B' and he called that type 'O'.44% of the general population belongs to blood group 'O' and 45% group 'A' .8% of the population belongs to group 'B' and 3% belongs to 'AB' group.

## MATERIAL AND METHOD-

An evaluative research approach is an applied from of research thatexperimental one group pre-test post-test design was used for this study. The study was carried out in Narayana Multi Specialty Hospital, Pratap Nagar, Jaipur among staff nurses'knowledgeand practice regarding blood transfusion. The sample comprised of 60 staff nurses working in eternal heart care center & research institute, Jaipur.

A Non-probability purposive sampling technique was used



**Experimental: O1 –X – O2**

**Control group: O1----- O2**

**KEY: -**

**O1:** Assess the knowledge regarding blood transfusion among staff nurses before administer of the Self-Instructional Module.

**X:** Administer Self Instructional Module (SIM).

**O2:** Assess the knowledge regarding blood transfusion among staff nurses after administration of the Self-Instructional Module.

**blood Transfusion of two groups experimental group and control group from Day 1 to Day 7 before pre test and post test.**

**Organization and presentation on the findings**

**Section1:** Descriptive of demographic variables of the staff nurses.

**Section 2:** Structured knowledge questionnaire regarding blood transfusion.

**Section 3:** Association between knowledge and practice level of staff nurses with demographic variable.

**TABLE 01**

**Schematic Representation of Research**

**Design**

GROUP	DAY-1 <sup>ST</sup>	DAY-3 <sup>RD</sup> (INTERVENTION)	DAY-8 <sup>TH</sup>
Experimental Group	assess the knowledge by pre test	Administered Self Instructional Module	assess the knowledge by post test
Control group	assess the knowledge by pre test	-----	assess the knowledge by post test

**The table 01-; A Schematic Representation of knowledge regarding**

**RESULT: DISTRIBUTION OF DEMOGRAPHIC VARIABLES**

**SECTION1: DESCRIPTIVE OF DEMOGRAPHIC VARIABLES OF THE STAFF NURSES**

Table No.: 2 Description of demographic variables of the staff nurses



N=60

Variable	Experimental Group		Control Group		Total	Percentage
	Frequency	Percentage	Frequency	Percentage		
<b>Age In Year</b>						
<25	8	26.67%	7	23.33%	15	25.00%
26- 30	10	33.33%	10	33.33%	20	33.33%
31- 35	5	16.67%	5	16.67%	10	16.67%
36- 50	7	23.33%	8	26.67%	5	25.00%
<b>Gender</b>						
Male	13	43.33%	12	40%	25	41.67%
Female	17	56.67%	18	40%	35	58.33%
<b>Religion</b>						
Hindu	13	43.33%	12	40%	25	41.67%
Muslim	5	16.67%	5	16.67%	10	16.67%
Christen	10	33.33%	10	33.33%	20	33.33%
Sikh	2	06.67%	3	10%	5	08.33%
<b>Prof.Qualification</b>						
G.N.M.	15	50%	15	50%	30	50%%
B.Sc. Nursing	8	26.67%	7	23.33%	15	25%%
Post basic B.Sc. Nursing	5	16.67%	5	16.67%	10	16.67%
M.Sc. Nursing	2	06.67%	3	10%	5	08.33%
<b>Area of Working</b>						
SICU	5	16.67%	5	16.67%	10	16.67%
CTVS	12	40%	13	43.33%	25	41.67%
MICU	10	33.33%	10	33.33%	20	33.33%
CCU	3	10%	2	06.67%	5	08.33%
<b>Year of Experience</b>						
0-5 years	10	33.33%	10	33.33%	20	33.33%
6-10 years	7	23.33%	8	26.67%	15	25%
11-15 years	8	26.67%	7	23.33%	15	25%
Above 15 years	5	16.67%	5	16.67%	10	16.67%
<b>Previous knowledge through</b>						
Seminar	10	33.33%	10	33.33%	20	33.33%
workshop	7	23.33%	8	26.67%	15	25%
Mass median	8	26.67%	7	23.33%	15	25%
Internet	5	16.67%	5	16.67%	10	16.67%

**Table No.: 2** show that Most of samples attend seminar (33.33%) and where previous knowledge regarding blood transfusion throughout was remaining remaining attend work shop (23.33%), where remaining attend mass median



(26.67%) and where remaining attend internet (16.67%) in experimental group whereas most of samples were previous knowledge regarding blood transfusion throughout in seminar (33.33%) and where remaining attend work shop (26.67%), where remaining attend mass median (23.33%) and where remaining attend internet (16.67%) in control group.

## SECTION 2: EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE

**Table No. 03 EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE**

Group	Experimental group			Control group			df	Tabulated values	Calculated value
	Mean	Median	SD	Mean	Median	SD			
Pre Test	14.5	14.5	1.707	11.5	11.5	1.84	58	1.671	13.604
Post Test	19	19	1.86	12.5	13	1.59	58		

- Table No. 03 is showing that in experimental group the mean of pre test is 14.5, median is 14.5, SD is 1.707 whereas the mean of post test is 19, median is 19 and SD is 1.86.
- Table No. 03 also showing that in control group the mean of pre test is 11.5, median is 11.5, SD is 1.84

whereas the mean of post test is 12.5, median is 13 and SD is 1.59.

- The calculated value of 'z' is 13.604 at the 0.05 level of significance and the tabulated value of 'z' is 1.671 at the 0.05 level of significance on 58 degree of freedom.
- The calculated value is higher than tabulated value so we can say that the self instructional module regarding blood transfusion can enhance the knowledge of staff nurses in experimental group.

## SECTION 3: ASSOCIATION BETWEEN KNOWLEDGE LEVELS OF STAFF NURSES WITH DEMOGRAPHIC VARIABLE

**Table No. 04: Association between knowledge levels of staff nurses with demographic variable**

S.No.	Demographic variable	Df	Tabulated Value	Calculated value		Significant/ Not significant
				Pre test	Post test	
1.	Age	4	9.49	0.6663	0.1431	Not Significant
2.	Gender	2	5.99	0.0837	0.5713	Significant
3.	Religion	6	12.99	4.3447	4.6182	Significant
4.	Professional education	6	12.99	1.31	5.8401	Significant
5.	Area of working	6	12.99	2.4628	1.9213	Significant
6.	Experience	6	12.99	1.2755	7.9342	Significant
7.	Previous knowledge	2	5.99	1.8741	0.6101	Not Significant



Table no.4 revealed that:

- There was no significant association between the knowledge levels with age of staff nurses at 0.05 level of significant at 4df.
- There was significant association between the knowledge levels with gender of staff nurses at 0.05 level of significant at 2df.
- There was significant association between the knowledge levels with religion of staff nurses at 0.05 level of significant at 6df.
- There was significant association between the knowledge levels with professional education of staff nurses at 0.05 level of significant at 6df.
- There was no significant association between the knowledge levels with area of working staff nurses at 0.05 level of significant at 6df.
- There was significant association between the knowledge levels with experience of staff nurses at 0.05 level of significant at 2df.
- There was no significant association between the knowledge levels with previous knowledge of staff nurses at 0.05 level of significant at 2df.

**DISCUSSION:** The present study was conducted to assess the effectiveness of self-instructional module on knowledge and practice regarding blood transfusion among staff nurses in selected hospital at Jaipur city Rajasthan. An experimental design with (one group pre and post) method was found appropriate to achieve the stated goals among 60 participants in selected hospital at Jaipur city Rajasthan.

**CONCLUSION:** From the findings of the present study, it is concluded that the level of knowledge regarding blood transfusion among staff nurses in selected hospital at Jaipur city Rajasthan can be further improved after administration of the Self Instructional Module.

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