



ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2017; 3(10): 276-278
www.allresearchjournal.com
Received: 15-08-2017
Accepted: 16-09-2017

Arvind Kumar Sharma
Professor, Swasthya Kalyan
Institute of Medical
Technology and Nursing
Education, Jaipur, Rajasthan,
India

Mukesh Chand Garg
Assistant Professor, Swasthya
Kalyan Institute of Medical
Technology and Nursing
Education, Jaipur, Rajasthan,
India

Arjun Singh
M.Sc. Nursing, Swasthya
Kalyan Institute of Medical
Technology and Nursing
Education, Jaipur, Rajasthan,
India

Correspondence

Arvind Kumar Sharma
Professor, Swasthya Kalyan
Institute of Medical
Technology and Nursing
Education, Jaipur, Rajasthan,
India

A study to evaluate the effectiveness of a self-instructional module (SIM) on knowledge regarding blood transfusion among staff nurses working in selected hospital at Jaipur

Arvind Kumar Sharma, Mukesh Chand Garg and Arjun Singh

Abstract

A blood transfusion is the transfusion of whole blood or its components such as blood cells or plasma from the one person to another person. This involves two procedures – the collection of blood from the donor and the administration of blood to the recipient. The study comprised of 60 staff nurses working in hospital. An evaluative approach with pre-experimental one group pre-test post-test research design was used.

The present study revealed that the level of knowledge was classified in four aspects includes poor (0-30%), average (31-50%), good (51-75) and very good (75-above). The data shows that in pre -test majority of the subjects 48.33% (29) had average knowledge and 33.34% (20) subjects had good knowledge and 8.33% (5) had poor knowledge and 10% (6) have very good knowledge about blood transfusion. In the assessment of post-test knowledge of staff nurses, majority 66.66% (40) of subject had very good knowledge while 31.67% (19) of them had good knowledge, 1.67% (1) have average knowledge about the topic and none were found to be poor in knowledge.

Keywords: Effectiveness, self-instructional module (SIM), Staff nurses, blood transfusion, knowledge

Introduction

Blood transfusion is the IV administration of whole blood or a component such as plasma, packed red cell, or platelets. The objectives of blood transfusion include increase circulatory blood volume after surgery, trauma or hemorrhage, to increase RBC or hemoglobin levels in clients with severe anemia and provide selected cellular components as replacement therapy. Blood transfusion is the nursing procedure. It is nurse's responsibility to assess the client before and after the transfusion and for regulation of transfusion.

Blood transfusion is generally the process of receiving blood or blood products into one's circulation intravenously. Transfusions are used for various medical conditions to replace lost components of the blood. Early transfusions used whole blood, but modern medical practice commonly uses only components of the blood, such as red blood cells, white blood cells, plasma, clotting factors, and platelets. This involves two procedures – the collection of blood from the donor and the administration of blood to the recipient.

Objectives

1. To assess the level of knowledge regarding blood transfusion among staff nurses working in selected hospital.
2. To assess the effectiveness of self-instruction module regarding blood transfusion among staff nurses by comparing pre and post-test knowledge.
3. To find out association between pre-test knowledge scores regarding blood transfusion with selected demographic variables.

Hypothesis

H₁: There is a significant association between pre-test knowledge scores regarding blood transfusion with selected demographic variables.

H₂: There is a significant difference between the pre-test and post-test knowledge scores regarding blood transfusion among staff nurses.

Research Methodology

Research Approach

The research approach adopted for this study was an evaluative approach. Evaluative approach helps to explain the effect of independent variable on the dependent variable.

Research Design

Pre-experimental one group pre-test post-test research design without control group was selected as the research design for the present study.

Variables

Independent variable

In this study independent variable refers to self-instructional module.

Dependent variable

In this study, knowledge of staff nurses regarding blood transfusion is the dependent variable.

Research Setting

This study was undertaken in Bhandhari Hospital, at Jaipur, Rajasthan.

Population

The population for the study were the staff nurses working in Bhandhari hospital at Jaipur, Rajasthan.

Sample Size

Sample size comprises of 60 staff nurses working in Bhandhari hospital at Jaipur.

Sampling Technique

In the present study 60 samples were selected using convenient sampling technique.

Sampling Criteria

Inclusion criteria

Staff nurses working in selected hospitals.

Staff nurses present at the time of data collection.

Exclusion criteria

Staff nurses who were not willing to participate in the study

Student nurses either post basic nursing or M.Sc. nursing

Nurses not working in the hospital

M. sc. nursing and ANM

Results

The mean post-test knowledge score ($X_2 = 20.55$) was higher than the mean pre-test knowledge score ($X_1 = 15.23$). The mean percentage knowledge score of pre-test was maximum in the area that related to blood donation (61.25%) and minimum in the area related to anatomy and physiology of blood (46.6%) whereas the mean percentage knowledge score of post-test was maximum in the area that related to blood donation (71.67%) and less in the area that related to blood transfusion (67.84%). The mean Percentage score of post-test (68.55) and the mean Percentage score of pre-test (50.77) knowledge score was lower than post

-test knowledge. There was highly significant association of pre-test knowledge score with selected demographic variables received at 0.05 level of significance.

Conclusion

The study had shown that majority of the staff nurses had inadequate knowledge regarding blood transfusion. However the knowledge has significantly improved after the administration of SIM; hence it is concluded that self-instructional module was an effective teaching strategy in improving the knowledge of staff nurses regarding blood transfusion in hospitals.

References

1. Anne Waugh, Allison Grant 'Ross and Wilson anatomy and physiology in health and illness' ninth edition, Churchill Livingstone publication. 2008; 10:57-72.
2. Potter PA, Anne G. Perry basic nursing essential for practice fifth edition, Elsevier publication. 2003; 393-395.
3. Sr. Nancy SR, Ivan Mos. J. Stephanie's principal & practice of nursing senior nursing procedures 'fourth edition, N. R. Publication. 2008; 4:133-152.
4. Cullum JL and Pinkerton Ph. Bloody easy 2: blood transfusions, blood alternatives and transfusion reactions: a guide to transfusion medicine, 2nd edition. Sunnybrook and women's college health sciences center, Toronto, ON, 2005.
5. Adams RC, Lundy JS. Anesthesia in cases of poor surgical risk. Some suggestions for decreasing risk. Surg Gynecology Obstet. 1942; 74:1011-1019.
6. Carson JL *et al* Clinical Transfusion Medicine Committee of the, AABB. Red Blood Cell Transfusion: A Clinical Practice Guideline from the AABB. Annals of Internal Medicine. 2012; 157:49-58. PMID 22751760. Doi: 10.7326/0003-4819-157-1-201206190-00429.
7. American Association of Blood Banks Five Things Physicians and Patients Should Question, Choosing Wisely: an initiative of the ABIM Foundation, American Association of Blood Banks, retrieved 25 July, 2014.
8. Villanueva C *et al* Transfusion strategies for acute upper gastrointestinal bleeding. The New England Journal of Medicine. 2013; 368(1):11-21. PMID 23281973. Doi: 10.1056/NEJMoa1211801.
9. Gasche C *et al* Guidelines on the diagnosis and management of iron deficiency and anemia in inflammatory bowel diseases (PDF). Inflammatory bowel diseases. 2007; 13(12):1545-53. PMID 17985376. Doi: 10.1002/ibd.20285.
10. Quality Management Training in Blood Transfusion Services in India. Report of a National Meeting of State Program Officers of India on Blood Safety Shimla, HP, India, 19- 20 July 2001/WHO Project: ICP BCT 001. 2011. Feb 26, [cited in 2010].
11. Talati S, Gupta AK, Jain A. Knowledge and awareness among nurses regarding the blood transfusion services and practices in a tertiary care teaching hospital. Asian J Transfuse Sci. 2016;10:166-8

12. Polit Hungler. Nursing Research Principles and Methods. 5thEd. New York: J.B Lippincott Company; 1999.
13. Gita Negi, Dushyant Singh Gaur, and Rajveer Kaur, A studies the frequency of various transfusion reactions and the associated morbidity pmc journals, Adv Biomed Res. 2015; 4: 237.Published online 2015 Oct 29. doi: 10.4103/2277-9175.168604
14. Singh SP, Nazreen H. A Prospective Study of Blood Usage Pattern and Demand Supply Assessment in a Tertiary Care Hospital in India. J Blood Disorder Transfuse. 2015, 6:317. doi:10.4172/2155-9864.1000317
15. J.M. Kabinda, Serge Miyanga Ahuka, Philippe Donnen, Jeff Van den Ende, [https://www.researchgate.net/publication/265515322_Knowledge Attributes and Practices of Medical and Paramedical Staff in Blood Transfusion in the Democratic Republic of Congo](https://www.researchgate.net/publication/265515322_Knowledge_Attributes_and_Practices_of_Medical_and_Paramedical_Staff_in_Blood_Transfusion_in_the_Democratic_Republic_of_Congo).
16. Makroo RN. Use of blood components in critically ill patients in the medical intensive care unit of a tertiary care hospital. Asian journal of Transfusion Science. 2009; 3(2):82-85.
17. Ali Reza Piri *et al.* Evaluation of knowledge of health care workers in Hospital of Zabol City on method of blood and components transfusion. Asian journal of transfusion. 2009; 3:78-81
18. Abdul Majeed Al-Drees. Attitude, belief and knowledge about blood donation and transfusion in Saudi population. Palestine journal of medical sciences. 2008; 24:74-79.
19. Naveen Manchal S. Jayaran. A prospective cohort study on anemia and blood transfusion in critically ill patients. Indian journal of critical Care medicine. 2007; 11(4):182-185.
20. Diaz MQ *et al.* result of a National survey on transfusion Practice in intensive care units. Medicine intensive. 2009; 33(1):8-15.
21. Mrs G. Suja Shamili, Dr. Indira. S, Ms. Divya Malika International Journal of Healthcare Sciences ISSN 2348-5728 (Online) 2016; 4(1):138-140.
22. Department of Medical Surgical Nursing, Shahrekord University of Medical Sciences, Shahrekord, Shahrekord, Iran. Correspondence to: Yosef Aslani, MSc. Research Article of Isfahan University of Medical Sciences, No: 287147 IJNMR/Summer. 2010; 15, 3
23. J D de Graff *et al.* Bed side practice of blood transfusion in a large teaching hospital in Uganda. Asian journal of transfusion section. 2009; 3(2):60-65.