Call for Editorial Board Members

As you are well aware that we are a medical and health sciences publishers; publishing peer-reviewed journals and books since 2004.

We are always looking for dedicated editorial board members for our journals. If you completed your master's degree and must have at least five years experience in teaching and having good publication records in journals and books.

If you are interested to be an editorial board member of the journal; please provide your complete resume and affiliation through e-mail (i.e. info@rfppl.co.in) or visit our website (i.e. www.rfppl.co.in) to register yourself online.

Call for Publication of Conference Papers/Abstracts

We publish pre-conference or post-conference papers and abstracts in our journals, and deliver hard copy and giving online access in a timely fashion to the authors.

For more information, please contact:

For more information, please contact:
A Lal
Publication-in-charge
Red Flower Publication Pvt. Ltd.
48/41-42, DSIDC, Pocket-II
Mayur Vihar Phase-I
Delhi – 110 091 (India)
Phone: 91-11-22754205, 45796900
E-mail: info@rfppl.co.in

Free Announcements of your Conferences/Workshops/CMEs

This privilege to all Indian and other countries conferences organizing committee members to publish free announcements of your conferences/ workshops. If you are interested, please send your matter in word formats and images or pictures in JPG/JPEG/Tiff formats through e-mail attachments to sales@rfppl.co.in.

Terms and Conditions to publish free announcements:

1. Only conference organizers are eligible up to one full black and white page, but not applicable for the front, inside front, inside back and back cover, however, these pages are paid.
2. Only five pages in every issue are available for free announcements for different conferences.
3. This announcement will come in the next coming issue and no priority will be given.
4. All legal disputes subject to Delhi jurisdiction only.
5. The executive committee of the Red Flower Publication reserve the right to cancel, revise or modify terms and conditions any time without prior notice.

For more information, please contact:
A Lal
Publication-in-charge
Red Flower Publication Pvt. Ltd.
48/41-42, DSIDC, Pocket-II
Mayur Vihar Phase-I
Delhi – 110 091 (India)
Phone: 91-11-22754205, 79695648
E-mail: info@rfppl.co.in

Win Free Institutional Subscription!

Simply fill out this form and return scanned copy through e-mail or by post to us.

Name of the Institution_____
Name of the Principal/Chairman_____
Management (Trust/Society/Govt./Company)_____
Address 1_____
Address 2_____
Address 3_____
City_____
Country_____
PIN Code_____
Mobile_____
Email_____

We are regular subscriber of Red Flower Publication journals.

Year of first subscription_____

List of ordered journals (if you subscribed more than 5 titles, please attach separate sheet)

Ordered through

Name of the Vendor	Subscription Year	Direct/subs Yr

Name of the journal for which you wish to be free winner

Terms and Conditions to win free institutional subscription

1. Only institutions can participate in this scheme
2. In group institutions only one institution would be winner
3. Only five institutions will be winner for each journal
4. An institution will be winner only for one journal
5. The free subscription will be valid for one year only (i.e. 1 Jan – 31 Dec)
6. This free subscription is not renewable, however, can be renewed with payment
7. Any institution can again participate after five years
8. All legal disputes subject to Delhi jurisdiction only
9. This scheme will be available to participate throughout year, but draw will be held in last week of August every year
10. The executive committee of the Red Flower Publication reserve the right to cancel, revise or modify terms and conditions any time without prior notice.

I confirm and certify that the above information is true and correct to the best of my knowledge and belief.

Place: Signature with Seal
Date:

Revised Rates for 2020 (Institutional)					
Title of the Journal	**Frequency**	**India(INR) Print Only**	**India(INR) Online Only**	**Outside India(USD) Print Only**	**Outside India(USD) Online Only**
Community and Public Health Nursing	3	6000	5500	469	430
Indian Journal of Agriculture Business	2	6000	5500	469	430
Indian Journal of Anatomy	4	9000	8500	703	664
Indian Journal of Ancient Medicine and Yoga	4	8500	8000	664	625
Indian Journal of Anesthesia and Analgesia	6	8000	7500	625	586
Indian Journal of Biology	2	6000	5500	469	430
Indian Journal of Cancer Education and Research	2	9500	9000	742	703
Indian Journal of Communicable Diseases	2	9000	8500	703	664
Indian Journal of Dental Education	4	6000	5500	469	430
Indian Journal of Diabetes and Endocrinology	2	8500	8000	664	625
Indian Journal of Emergency Medicine	4	13000	12500	1016	977
Indian Journal of Forensic Medicine and Pathology	4	16500	16000	1289	1250
Indian Journal of Forensic Odontology	2	6000	5500	469	430
Indian Journal of Genetics and Molecular Research	2	7500	7000	586	547
Indian Journal of Law and Human Behavior	3	6500	6000	508	469
Indian Journal of Legal Medicine	2	9000	8500	703	664
Indian Journal of Library and Information Science	3	10000	9500	781	742
Indian Journal of Maternal-Fetal and Neonatal Medicine	2	10000	9500	781	742
Indian Journal of Medical and Health Sciences	2	7500	7000	586	547
Indian Journal of Obstetrics and Gynecology	4	10000	9500	781	742
Indian Journal of Pathology: Research and Practice	6	12500	12000	977	938
Indian Journal of Plant and Soil	2	7000	6500	547	508
Indian Journal of Preventive Medicine	2	7500	7000	586	547
Indian Journal of Research in Anthropology	2	13000	12500	1016	977
Indian Journal of Surgical Nursing	3	6000	5500	469	430
Indian Journal of Trauma and Emergency Pediatrics	4	10000	9500	781	742
Indian Journal of Waste Management	2	10000	9500	781	742
International Journal of Food, Nutrition and Dietetics	3	6000	5500	469	430
International Journal of Forensic Science	2	10500	10000	820	781
International Journal of Neurology and Neurosurgery	4	11000	10500	859	820
International Journal of Pediatric Nursing	3	6000	5500	469	430
International Journal of Political Science	2	6500	6000	508	469
International Journal of Practical Nursing	3	6000	5500	469	430
International Physiology	3	8000	7500	625	586
Journal of Animal Feed Science and Technology	2	8300	7800	648	609
Journal of Cardiovascular Medicine and Surgery	4	10500	10000	820	781
Journal of Emergency and Trauma Nursing	2	6000	5500	469	430
Journal of Food Additives and Contaminants	2	6000	5500	430	391
Journal of Food Technology and Engineering	2	5500	5000	430	391
Journal of Forensic Chemistry and Toxicology	2	10000	9500	781	742
Journal of Global Medical Education and Research	2	6400	5900	500	461
Journal of Global Public Health	2	12500	12000	977	938
Journal of Microbiology and Related Research	2	9000	8500	703	664
Journal of Nurse Midwifery and Maternal Health	3	6000	5500	469	430
Journal of Orthopedic Education	3	6000	5500	469	430
Journal of Pharmaceutical and Medicinal Chemistry	2	17000	16500	1328	1289
Journal of Plastic Surgery and Transplantation	2	26900	26400	1954	575
Journal of Psychiatric Nursing	3	6000	5500	469	430
Journal of Radiology	2	8500	8000	664	625
Journal of Social Welfare and Management	4	8000	7500	625	586
New Indian Journal of Surgery	6	8500	7500	664	625
Ophthalmology and Allied Sciences	3	6500	6000	508	469
Pediatric Education and Research	4	8000	7500	625	586
Physiotherapy and Occupational Therapy Journal	4	9500	9000	742	703
RFP Gastroenterology International	2	6500	6000	508	469
RFP Indian Journal of Hospital Infection	2	13000	12500	1016	977
RFP Indian Journal of Medical Psychiatry	2	8500	8000	664	625
RFP Journal of Biochemistry and Biophysics	2	7500	7000	586	547
RFP Journal of Dermatology (Formerly Dermatology International)	2	6000	5500	469	430
RFP Journal of ENT and Allied Sciences (Formerly Otolaryngology International)	2	6000	5500	469	430
RFP Journal of Gerontology and Geriatric Nursing	2	6000	5500	469	430
RFP Journal of Hospital Administration	2	7500	7000	586	547
Urology, Nephrology and Andrology International	2	8000	7500	625	586

Terms of Supply:

1. Agency discount 12.5%. Issues will be sent directly to the end user, otherwise foreign rates will be charged.
2. All back volumes of all journals are available at current rates.
3. All journals are available free online with print order within the subscription period.
4. All legal disputes subject to Delhi jurisdiction.
5. Cancellations are not accepted orders once processed.
6. Demand draft/cheque should be issued in favour of "**Red Flower Publication Pvt. Ltd.**" payable at **Delhi.**
7. Full pre-payment is required. It can be done through online (http://rfppl.co.in/subscribe.php?mid=7).
8. No claims will be entertained if not reported within 6 months of the publishing date.
9. Orders and payments are to be sent to our office address as given below.
10. Postage and Handling is included in the subscription rates.
11. Subscription period is accepted on calendar year basis (i.e. Jan to Dec). However orders may be placed any time throughout the year.

Order from

Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091 (India)
Mobile: 8130750089, Phone: 91-11-79695648, 22754205, 22756995, E-mail: sales@rfppl.co.in, Website: www.rfppl.co.in

IJSN
Indian Journal of Surgical Nursing

RED FLOWER PUBLICATION PVT. LTD.

Managing Editor
A. Lal

Publication Editor
Dinesh Kumar Kashyap

Printed at Saujanya Printing Press, B-303, Okhla Industrial Area, Phase-1, New Delhi - 110 020.

Editorial Office
Red Flower Publication Pvt. Ltd.
48/41-42, DSIDC, Pocket-II
Mayur Vihar Phase-I, Delhi - 110 091(India)
Phone: 91-11-22756995, 22754205, 45796900
E-mail: info@rfppl.co.in
Website: www.rfppl.co.in

Indian Journal of Surgical Nursing (pISSN: 2277-467X; eISSN: 2455-5509) is the professional, peer-reviewed journal for nurses in surgical nursing practice. Written by and for surgical nurses, the journal features clinical articles covering a wide variety of surgical procedures. The articles are including patient education techniques and research findings in all issues of **IJSN. IJSN** is committed to the advancement of adult health/medical-surgical nursing practice. **IJSN** supports adult health/medical-surgical nurses as they strive for excellence in patient care, private practice, and outpatient health care settings in different types of locations in the world.

Subscription Information

India
Institutional (1 year) (Print+Online): INR 6000

Rest of the World
Insitutional (1 year) (Print+Online): USD469

Payment instructions
Online payment link:
http://rfppl.co.in/payment.php?mid=15

Cheque/DD:
Please send the US dollar check from outside India and INR check from India made. Payable to 'Red Flower Publication Private Limited'. Drawn on Delhi branch

Wire transfer/NEFT/RTGS:
Complete Bank Account No. 604320110000467
Beneficiary Name: Red Flower Publication Pvt. Ltd.
Bank and Branch Name: Bank of India; Mayur Vihar
MICR Code: 110013045
Branch Code: 6043
IFSC Code: BKID0006043 (used for RTGS and NEFT transactions)
Swift Code: BKIDINBBDOS

Send all Orders to: Subscription and Marketing Manager, Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi - 110 091(India),
Phone: 91-11-79695648, 22754205, 22756995, E-mail: sales@rfppl.co.in,
Website: www.rfppl.co.in

Indian Journal of Surgical Nursing
IJSN

Articles

May–August 2020
Volume 9 Number 2

Contents

Original Articles

Stop on Knowledge Regarding Body Mechanics and Selected Nursing Procedures and Prevention of Back Pain Among the Staff Nurses **57**
Gowri Sayee Jagadesan, MalaV S

Effectiveness of Self Instructional Module on Knowledge Regarding Varicose Vein Among Staff Nurses **65**
Manju Amrutram Shahu, Pascaline David, Sukare Lata

Effectiveness of Magnesium Sulphate with Glycerine", For Reducing Inflammation Among Patients with Peripheral Intravenous Cannula Induced Phlebitis **75**
P Saktisvary

An Unknown Health Problem: Restless Leg Syndrome **79**
Sophie Caleb

Effectiveness of Ice Pack Application on Phlebitis Among Patients with Peripheral Intra-venous Cannula Induced Phlebitis
P Saktisvary

Review Articles

Extra-Corporeal Membrane Oxygenation (ECMO) **85**
Sheeja Sebastian, Sr. Philoresmi, Neethu Jose

Review on Breast Feeding and Covid 19 **90**
S Suvitha, S.Sridevy

Guidelines for Author **93**

Orignal Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.1

Stop on Knowledge Regarding Body Mechanics and Selected Nursing Procedures and Prevention of Back Pain Among the Staff Nurses

Gowri Sayee Jagadesan[1] MalaV S[2]

Abstract

Good body mechanics is the efficient co-ordinated and safe use of the body to produce motion and maintain balance during activity. Based on the problem selected and objectives of the study an evaluative research approach was used.[5] The design adopted for this study was pre- experimental one group pre-test post-test design; Sample of 30 staff nurses were selected by Non-probability convenient sampling technique. Data was collected by using self administered knowledge questionnaire before and after the implementation of Video Assisted Teaching Program. Paired't' test was used to compute the difference between mean pre-test and mean post-test knowledge scores of the Staff Nurses reveal that 46.67 per cent of Staff Nurses had inadequate knowledge, 53.33 per cent had moderate knowledge and none of them had adequate knowledge in pre-test. In post test the knowledge scores of the Staff Nurses reveal that 13.33 per cent of them had inadequate knowledge, 46.67 per cent had moderate knowledge and 40 per cent of them had adequate knowledge regarding Body Mechanics on selected Nursing Procedures and prevention of back pain. Hence teaching programme regarding Body Mechanics on selected Nursing Procedures and prevention of back pain followed by pre test was effective. Chi-square test was applied to find out the association between selected demographic variables and post-test knowledge score. There was no significant association found between the post-test knowledge score and socio-demographic data. The overall findings of the study revealed that the Video Assisted Teaching Program is significantly effective in improving the knowledge scores of staff nurses regarding of Body Mechanics on selected nursing procedure and prevention of back pain among Staff Nurses

Keywords: Video Assisted Teaching Program; Staff nurses; Effectiveness; Knowledge; Body Mechanics.

How to cite this article:

Gowri Sayee Jagadesan, MalaV S, Stop on Knowledge Regarding Body Mechanics and Selected Nursing Procedures and Prevention of Back Pain Among the Staff Nurses. Indian J Surg Nurs. 2020;9(2):57–63.

Introduction

The co-coordinated efforts of musculo skeletal and nervous system to maintain balance, posture, and body alignment during lifting, bending, moving and performing activities of daily living provide the foundation for body mechanics. The proper implementation of these activities reduces the risk of injury to the musculo skeletal system and facilitates body movements, allowing physical mobility without muscle strain and excessive use of muscle energy.[1]

Author Affiliation: [1]Professor, Department of Obg, [2]Professor, Departmet of Child Health, Fortis Institute of Nursing, Bengaluru.

Corresponding Author: Mala V S, [2]Professor, Departmet of Child Health, Fortis Institute of Nursing, Bengaluru.

E-mail: vs.mala78@gmail.com

The concept of body mechanics includes body alignment, body balance and body movement. The intent of body mechanics is to protect nurses, repositioned patients by shifting their weight in certain ways thought to protect the back. Correct body alignment reduces strain on musculoskeletal structures, maintain adequate muscle care and contribute to balance.[3]

Compared to other occupations nursing personnel are among the highest at risk for musculo skeletal disorders. The bureau of Labour Statistics lists registered nurses 6th in a list of at- risk occupations for strains and sprains. Research on the impact of musculos keletal injuries among nurses in US showed that 52% of nurses complain of back pain, 12% of nurses "leaving for good" because of back pain, 20% transferred to different unit or employment and 38% suffered occupational related back pain severe enough to require leave from work and 6%, 8% and 11% of registered nurses reported even changing jobs for neck, shoulder and back problems respectively.[9]

The Aims and Objective of the Present study was

1. To assess the level of knowledge regarding Body Mechanics on selected Nursing Procedures and prevention of back pain among Staff Nurses by conducting pre-test.
2. To administer Structured Teaching Programme regarding Body Mechanics on selected Nursing Procedures and prevention of back pain among Staff Nurses.
3. To assess the level of knowledge regarding Body Mechanics on selected Nursing Procedures and prevention of back pain among Staff Nurses by conducting post-test.
4. To evaluate the effectiveness of Structured Teaching Programme regarding the knowledge of Body Mechanics on selected Nursing Procedures and prevention of back pain among Staff Nurses by comparing pre-test and post-test knowledge scores.
5. To identify the association between post-test knowledge scores of Staff Nurses regarding Body mechanics on selected Nursing Procedures and prevention of back pain with socio-demographic variables.

Materials and Methods

A pre-experimental one group pre test and post test design with evaluative approach was adopted in order to evaluate the effectiveness of structured teaching program regarding Body Mechanics on selected nursing procedures and prevention of back pain working in Fortis Hospital. Validity and reliability of the questionnaire and structured teaching program regarding Body Mechanics on selected nursing procedures and prevention of back pain among Staff Nurses were tested.

The sampling technique selected for this study is non probability convenient sampling technique. The researcher had taken permission to conduct the research study. Consent was taken from the subjects before data collection. The subjects were informed that the confidentiality of data will be maintained. The subjects were also informed that their participation was purely voluntary basis and they can withdraw from the study any time.

Structured knowledge questionnaire was developed with the help of related literature from various textbook, journals and research articles. Knowledge questionnaire consisted of 30 questions, where each questions have four options. Corrected answer carried one mark, wrong answer carry zero mark .The total score awarded was 30. Multiple choice questionnaires is prepared on Body Mechanics on selected nursing procedures and prevention of back pain It consisting of two sections:

Section 1: Socio-Demographic data.

It includes variables like age, gender, marital status, educational qualification, years of experience, department of work, hours of working, distance to work place, mode of transportation, height, weight, BMI, any musculo skeletal problem, regarding back pain, any regular exercise, meal time, previous knowledge regarding body mechanics, practices of body mechanics during work.

Section 2: Structured Knowledge Questionnaire

It includes questionnaire on knowledge regarding Body Mechanics which is divided upon six headings such as general information on Body Mechanics, purpose, principles of proper Body Mechanics, regulation of body movement, complication of poor Body Mechanics and prevention of back pain.

Structured Teaching Programme consists of the following content:

Introduction, Body Mechanics definition, Purpose, Principles of proper Body Mechanics, Regulation of body movement, Complication of poor Body Mechanics,Prevention of back pain

On first day, a pre-test was conducted on 30 staff nurses who were working in Fortis hospital Bannerghatta road, using the Structured Knowledge Questionnaire followed by structured teaching program administered for the group using lecturer method with appropriate AV aids (power point) for 45 minutes. On seventh day a post-test was conducted for the groups using the same structured knowledge Questionnaire that was used in pre test.

Analysis interpreted with the help of descriptive statistics such as mean, mean percentage, median, standard deviation.

Paired t–test used to compare pre-test and post test knowledge of Staff Nurses regarding Body Mechanics on selected nursing procedures and prevention of back pain in pre-experimental group.

Chi-square used to assess the association between knowledge regarding Body Mechanics on selected nursing procedures and prevention of back pain. The data will be presented in the form of tables, graphs and diagrams.

Results

This chapter deals with the analysis of the data collected and its interpretation. The analyzed data are given in the tables and graphs according to the objectives of the study. The data is categorized into four sections.

The first section shows the distribution of Staff Nurses according to the selected demographic variables. Frequency and percentage distribution of socio-demographic variables such as age, gender, marital status, educational qualification, years of experience, department of work, hours of working, distance to work place, mode of transportation, height, weight, BMI, any musculo-skeletal problem, regarding Back pain, any regular exercise, meal time, previous knowledge regarding Body Mechanics, practices of Body Mechanics during work of Staff Nurses working in Fortis Hospita.[1]

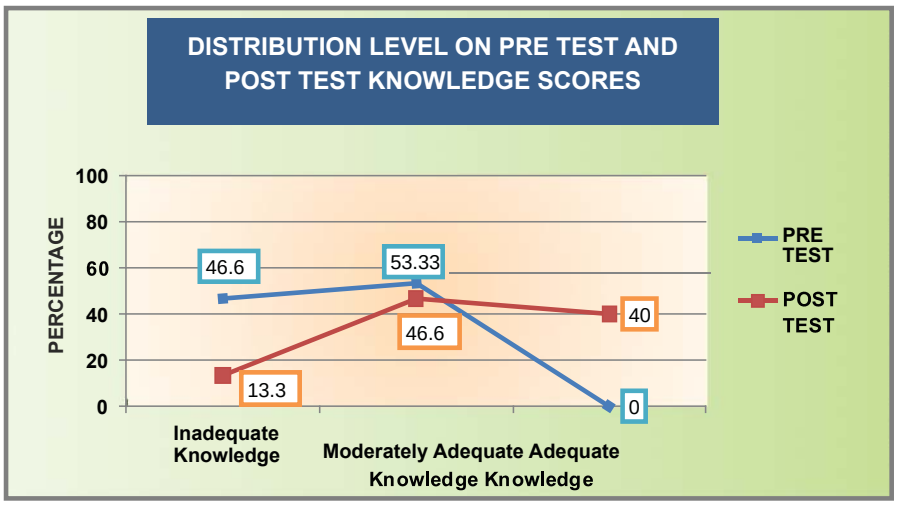
The second section describes frequency and percentage distribution of level of knowledge of Staff Nurses regarding Body Mechanics on selected nursing procedures and prevention of Back pain. It reveals that with regard to overall knowledge scores of pre-test 14 Staff Nurses (46.67 per cent) had inadequate knowledge, 16 Staff Nurses (53.33 per cent) had moderately adequate knowledge and none of Staff Nurses had adequate knowledge whereas 4 Staff Nurses (13.33per cent) had inadequate knowledge, 14 Staff Nurses (46.67 per cent) had moderately adequate knowledge and 12 Staff Nurses (40 per cent) had adequate knowledge in post-test.

The third section illustrates frequency and percentage distribution of pre-test and post-test scores with paired t-test value.

The final section deals with the chi square test showing the association between the post-test knowledge scores and selected socio-demographic variables. It reveals that there was no significant association found between the post-test knowledge score and socio-demographic data. Hence, the research null hypothesis H1.0 was accepted with regard to the socio-demographic variables and the post test knowledge scores regarding Body Mechanics on selected nursing procedures and

Table 1: Distribution of Subjects Regarding Body Mechanics According to their Pre-Test and Post-Test Scores With Paired „T□ Test Value

S. No.	Level of knowledge	Pre Test		Post Test		„t□ VALUE
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	
1)	Inadequate knowledge (≤50%)	14	46.67	4	13.33	
2)	Moderately adequate knowledge (51-74%)	16	53.33	14	46.67	5.15
3)	Adequate knowledge (≥ 75%)	0	0	12	40	



Sl. No.	Socio Demographic Data	Post Test Knowledge			Df	Chi Squar E	Infer Ence
		Inadequate Knowledge	Moderate Ly Adequate Knowled Ge	Adequate Knowledg E			
1)	Age (in years)						
	23-26	3	8	4			
	27-30	1	2	5			
	31-34	0	1	1	8	6.78	NS
	35-38	0	1	2			
	39-42	0	2	0			
2	Gender						
	Male	0	1	3	2	2.49	NS
	Female	4	13	9			
3	Marital status						
	Married	1	8	6	2	1.28	NS
	Unmarried	3	6	6			
4	Educational qualification						
	Graduation	4	14	11			
	Post-graduation	0	0	1	2	1.55	NS
5	**Years of experience**						
	0-5	4	10	6			
	6-10	0	1	4			
	11-15	0	2	2	6	6.42	NS
	16-20	0	1	0			
6	Department of work						
	Medical-surgical	4	11	10			
	Paediatric	0	2	1	4	1.18	NS
	OBG	0	1	1			
7	Hours of working						
	6-7	1	0	2			
	8-9	3	13	10			
	10-11	0	1	0	4	4.11	NS
8	(Distance from workplace (km						
	0-3	3	5	8			
	4-6	0	6	4			
	7-9	1	1	0			
	10-12	0	2	0	6	8.38	NS
9	Mode of transportation						
	Walk	3	5	8			
	Public trans-port	1	7	2			
	Two wheeler	0	2	2	4	4.45	NS

Cont.../-

10	(Subjects" Height (cm						
	131-150	1	2	1			
	151-170	3	12	10			
	171-190	0	0	1	4	2.18	NS
11	(Subjects" Weight (kg						
	31-50	1	5	4			
	51-70	2	8	5			
	71-90	1	1	1	6	6.46	NS
	91-120	0	0	2			
12	Subjects" BMI						
	Normal	3	9	5			
	Underweight	0	2	1			
	Overweight	1	3	4			
	Obese	0	0	2	6	4.89	NS
13	Musculoskeletal problem						
	Yes	2	9	4			
	No	2	5	8	2	2.47	NS
	Specifying Problems						
	Neck pain	0	1	0			
	Leg pain	0	1	1			
	Knee pain	0	1	0			
	Back pain	2	6	3			
	No problem	2	5	8	8	4.63	NS
14	Back pain						
	Yes	2	6	3			
	No	2	8	9	2	1.24	NS
	Frequency of Pain						
	Daily	0	1	1			
	During work	2	4	2			
	Frequently	0	1	0	6	9.11	NS
	No Back pain	2	8	9			
	Management of Back pain						
	Medication	1	2	0			
	Rest	0	4	1			
	Exercise	1	0	2			
	No Back pain	2	8	9	6	8.00	NS

Cont.../-

15	Exercise						
	Yes	1	4	4			
	No	3	10	8	2	0.12	NS
	Type:						
	Walking	1	2	1			
	Gym	0	1	1			
	Others	0	1	2	6	2.04	NS
	No exercise	3	10	8			
	Duration of Exercise						
	30 minutes	1	1	2			
	60 minutes	0	3	2			
	No exercise	3	10	8	4	1.80	NS
16	Previous Sources of Information						
	College	0	0	3			
	SOP class	0	5	1			
	Personal experience	1	4	3			
	Peer group	1	1	0	10	11.94	NS
	Text book	0	1	1			
	No information	2	3	4			
	Practice of Body Mechanics						
	Yes	2	10	5			
	No	2	4	7	2	2.41	NS

Conclusion

The present study revealed the knowledge regarding Body Mechanics in selected nursing procedure and prevention of back pain among Staff Nurses. The knowledge of the Staff Nurses was found to be inadequate in the pre-test with. Whereas in the post-test 13.33 per cent of the Staff Nurses had inadequate knowledge, 46.67 per cent gained moderately adequate knowledge and 40 per cent had adequate knowledge regarding Body Mechanics in selected nursing procedure and prevention of back pain. The findings of the study have implications on the field of nursing education, nursing practice, nursing administration and nursing research. Nurses through interpersonal interaction could identify the various problems faced by them regarding Body Mechanics in selected nursing procedure. Here more focus should be given on Body Mechanics to create awareness among them regarding Body Mechanics in selected nursing procedure and prevention of back pain.

Discussion

The present study the knowledge scores of the Staff Nurses reveal that 46.67 per cent of Staff Nurses had inadequate knowledge, 53.33 per cent had moderate knowledge and none of them had adequate knowledge regarding Body Mechanics on selected Nursing Procedures and prevention of back pain in pre-test. In post test the knowledge scores of the Staff Nurses reveals that 13.33 per cent of them had inadequate knowledge, 46.67 per cent had moderate knowledge and 40 per cent of them had adequate knowledge. Hence, structured teaching programme regarding Body Mechanics on selected Nursing Procedures and prevention of back pain was effective

Bibiliography

1. Basavanthappa BT. Fundamentals of Nursing. 1st edition. Jaypee Brothers Publishers; 2002. p. 253-259.
2. Kalnitsky A. Body mechanics. [Online]. 2008;[1 screen]. Available from: URL:http://www.spineuniverse.com/display_article.php/article836.html.
3. Gail Powell-Cope et al. Faculty Perceptions of Implementing an Evidence-Based Safe Patient Handling Nursing Curriculum Module. Evi-based safe patient handle [serial online] 2008 Sept; Vol. 13. Available from: www.spineuniverse.com.

4. White L. Foundation of basic nursing. 2nd ed. Australia: Thomson Publications; p. 553-64.
5. Kozhier Erb, Berman Snyder. Fundamental of nursing, concepts, practice and progress. 7th edition. Pearson publishers; 2004. p. 1076-1079.
6. Potter A P, Perry A G. Fundamentals of nursing practice. 6th edition. Elsevier publication; 1998. P. 132-136
7. Engels JA et al. Work related risk factors for musculoskeletal complaints in the nursing profession. MS comp in the nsg prof [serial online] Journal of Occupational Environmental Medicine 1996 Sep; 53(9): 636-41.
8. Nowlis E. Nursing: a human needs approach. 3rd ed. USA: Houghton Mifflin Company; 1985. p. 442-60.
9. Nelson A. American Nurses Association: Handle with care; campaign fact sheet.[online].2005-2006 Nov-Jan;74(4):4.Availablefrom: URL:http://www.nursingald.com/uploads/newsletter/ND 072005.pdf.
10. Sienkiewicz Z, Paszek T, Wronska I. Strain on the spine- Professional threat to nurses' health. 2007. p.131-135.
11. Karahan A, Bayraktar N. Determination of the usage of body mechanics in clinical settings and the occurrence of low back pain in nurses. [Journal Article] Int J Nurs Stud 2004 Jan; 41(1):67-75.
12. Patricia A.Potter, Annegriffin Perry. Fundamentals of Nursing. 5th Edition. 2001. p. 15. (Vol.1).

Orignal Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.2

Effectiveness of Self Instructional Module on Knowledge Regarding Varicose Vein Among Staff Nurses

Manju Amrutram Shahu [1], Pascaline David[2], Sukare Lata[3]

Abstract

Background: Varicose veins are permanently distended veins that develop from the loss of valvular competence. Faulty valves elevate venous pressure causing distension and tortuosity of the superficial veins. The greater and lesser saphenous veins and perforator veins in the ankle are common sites of varicosities.[1] Varicose vein is more common in women. However, the gender ratio decreases with advancing age and almost disappears in client older than 70 years. Prolonged standing has been implicated as a cause of varicose veins, but epidemiologic studies have not demonstrated an association between standing at work and an increased incidence of varicose veins.[2] Nursing profession is perceived as a high-risk occupation, in which positions such as long-time standing and sitting are inevitable during the work. In spite of varicose appearance, as the main patients' complaint, other symptoms such as dull pain, feeling heavy in legs, night cramps and sometimes varicose inflammation as thrombophlebitis are observed.[3]. *Objective*: To assess the pre test and post test knowledge regarding varicose veins, and to associate the knowledge score with demographic variables. *Methodology*: A pre experimental one group pre testpost test design was adopted for the study. It was conducted over 60 staff nurses and was selected by using non probability purposive sampling technique. Pre test was done using self structured questionnaire for knowledge. After pre test the researcher administered self instructional module regarding knowledge. Post test was done after seven days and analysis showed that there was significant increase in knowledge after administering self instructional module. The analysis reveals that post test mean knowledge score value which was 25.16 with SD of ±3.74 when compared with the pretest mean knowledge score value which was 13.10 with SD of ± 3.54. The calculated't' value 30.13 is greater than table value 2.00 at 0.05 level of significance. Thus the H1 is accepted and H0 is rejected. *Conclusion*: The significantly association was found on knowledge with present work area. Thus, the study concluded that self instructional module was effective in improving knowledge regarding varicose vein.

Keywords: Varicose Vein; Staff Nurse; Intensive Care Unit; Self Instructional Module, Knowledge.

How to cite this article:
Manju Amrutram Shahu, Pascaline David, Sukare Lata , Effectiveness of Self Instructional Module on Knowledge Regarding Varicose Vein Among Staff Nurses. Indian J Surg Nurs. 2020;9(2):65–73.

Introduction

Veins are blood vessels. In healthy vein blood flows smoothly to the heart that return blood at low pressure to the heart. The walls of the veins are thinner than those of arteries but have the same three layers of tissue. They are thinner because there is less muscles and elastic tissue in the tunica media, because veins carry blood at a low pressure than arteries.[1]

Author Affiliation: [1]M.Sc. Nursing, [2]Associate Professor, [3]Professor and HOD, Department of Medical Surgical Nursing, V S P M Madhuribai Deshmukh Institute of Nursing Education, Digdoh Hills, Hingna road Nagpur, Maharashtra, India.

Corresponding Author: Manju Amrutram Shahu, M.Sc. Nursing, Department of Medical Surgical Nursing, V S P M Madhuribai Deshmukh Institute of Nursing Education, Digdoh Hills, Hingna road Nagpur, Maharashtra, India.

E-mail: manjushahu1993@gmail.com

Some veins possess valves, which prevent backflow of blood, ensuring that it flows towards the heart. They are formed by a fold of tunica intima and strengthened by connective tissue. Valves are abundant in the veins of the limbs, especially the lower limbs where blood must travel a considerable distance against gravity when the individual is standing. Valves are assisted in maintaining one way flow by skeletal muscles surrounding the veins.[1]

Varicose veins are permanently distended veins that develop when the small valves inside the veins stop working that is the loss of valvular competence. Faulty valves elevate venous pressure causing distension and tortuosity of the superficial veins. The greater and lesser saphenous veins and perforator veins in the ankle are common sites of varicosities.[2]

Varicose veins may be either primary or secondary. Telangiectasia's varicose also called spider veins. This veins are dilated superficial capillaries, arterioles and venules. This types of varicose veins may be cosmetically unattractive but do not pose a threat to circulation.[3]

Varicose vein is more common in women. However, the gender ratio decreases with advancing age and almost disappears in client older than 70 years. Prolonged standing has been implicated as a cause of varicose veins, but epidemiologic studies have not demonstrated an association between the prolonged standing at work and an increased incidence of varicose veins in staff nurses.[4]

Background and need of the study

From the thousands of years the varicose veins have troubled for every human being. Varicose veins are mentioned as early as 1550 B.C. in the Ebers papyrus, where it was approve not to treat them. From the ancient Greece the varicose veins were also mentioned. The role of varicose veins and venous hypertension in creating venous ulcers was recognized as early as the days of Hippocrates. Compression therapy it was also recommended by Hippocrates for the treatment of varicose veins and venous ulcers, still it is used today. 'Varicose veins' is derived from the Latin word 'varix' which means twisted.[5]

According to the American Society for Vascular Surgery, at least 20 to 25 million Americans have varicose veins. Statistics further show that 17% of men and 33% of women have varicose veins. In fact, more people are unable to work due to vein disorders than due to arterial disease.[6]

Varicose veins affect a large percentage of the adult's population. The prevalence increases with age and peaks between the fifth and sixth decades of life. Varicose veins are more common in women, however, the gender ratio decreases with advancing age and almost disappear in client older than 70 years. Prolonged standing has been implicated as a cause of varicose veins, but epidemiologic studies have not demonstrated as association between prolonged standing at work and an increased incidence of varicose veins. Client with varicose veins often complaints of aching, a feeling of heaviness in the legs, itching, moderate swelling, and frequently, the unsightly appearance of their legs.[2]

Fatma abdel moneim, have conducted a study in al jouf region to assess the prevalence and clinical presentation of varicose veins among nurses working in hospitals. According to the findings, it was identified that 73.9% of staff nurses developed leg varicose vein with varying size. The incidence of varicose is almost double in nurses as compared to other professional groups and the general population. There is highest prevalence of varicose intensity was related to telangiectasia. 3.31% of leg varicose cases developed lipodermosclerosis. The difference seems to be owing to nurses' more years of service and overtime hours. A trend was detected between regular exercises and varicose intensity, and therefore, protective effect of regular exercise might reduce the varicose intensity.[7]

Nursing is a profession which is recognize as a high-risk occupation, in which positions such as long-time standing and sitting are unavoidable during the work. The main complaints of patients is varicose appearance and other symptoms are dull pain, feeling heavy in legs, night cramps, varicose inflammation with thrombophlebitis are seen. Nurses are the major part of health-care systems, some factors like frustrating and overwhelming positions can lead to disruption in services from health therapeutic system, This issue is highly important, because it can affect working output and old age, health, underlying thrombotic problems, and other serious complications related to health.[7]

After reviewing many literatures investigator found that there are very less studies on nurses knowledge regarding varicose veins and they need to be educated regarding varicose vein to prevent and treat the painful disorders. Many studies have proved that planned teaching programme and video assisted teaching programme is very good strategies to improve knowledge. So, investigator felt to prepare self instructional module on knowledge regarding varicose veins in this study for staff nurses to increase their knowledge and to see the effectiveness of self instructional module.[7]

Statement of the problem

A study to assess the effectiveness of self instructional module on knowledge regarding varicose vein among staff nurses working in the intensive care units of selected hospitals of the city.

Objectives

1. To assess the pre test knowledge score regarding varicose veins among staff nurses working in intensive care units of the selected hospitals.
2. To assess the post test knowledge score regarding varicose veins among staff nurses working in intensive care units of the selected hospitals.

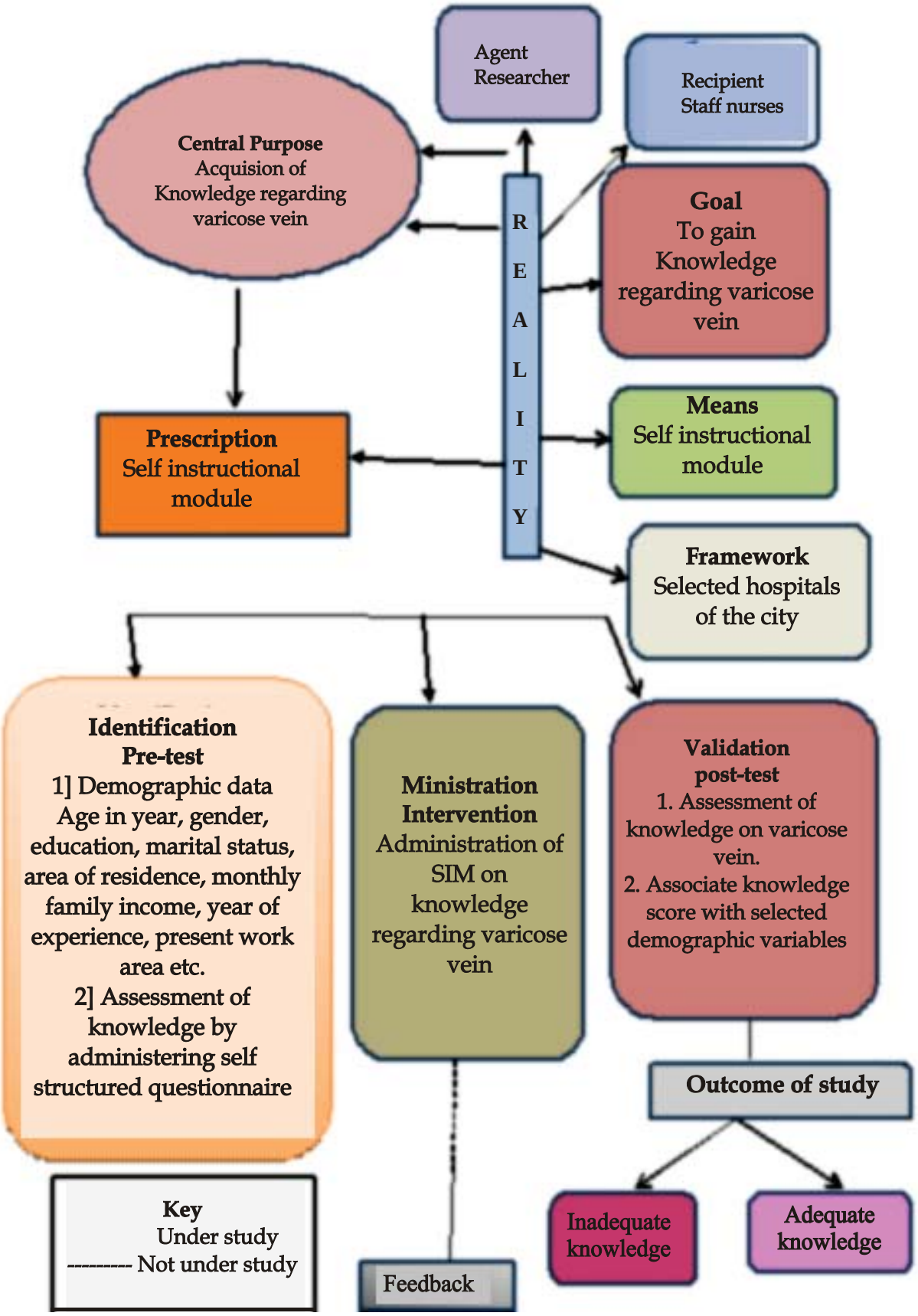


Fig..1: Conceptual framework based on modified Wiedenbanch's Prescriptive Theory

3. To evaluate the effectiveness of self instructional module on knowledge regarding varicose veins among staff nurses working in intensive care units of the selected hospitals.
4. To associate the knowledge score with selected demographic variable.

Operational definition

1. *Assess*: In this study assess is refers to evaluate the knowledge of staff nurses regarding varicose veins.
2. *Effectiveness*: In this study the effectiveness means improvement of knowledge of staff nurses regarding varicose veins.
3. *Self instructional module*: In this study self instructional module is systematically made learning materials, arranged by investigator to improve / increase the knowledge of staff nurses regarding the varicose veins.
4. *Knowledge*: In this study knowledge is facts, information, skills acquired through education with regards to varicose vein among staff nurses in term of correct response to the items on structured knowledge questionnaire.
5. *Varicose veins*: In this study varicose vein is that has enlarged and twisted, often appearing as a bulging, blue blood vessel that is clearly visible through the skin.
6. *Staff nurses*: In this study staff nurses refers to GNM, B. Sc. Nursing/ B.B.Sc. nursing, and P.B.B.Sc.\P.C. B.Sc. Nursing qualified registered nurses working in the intensive care units of the selected hospitals of the city.
7. *Intensive care unit*: In this study intensive care unit means medical surgical intensive care unit, pediatric intensive care unit and neonatal intensive care unit.

Delimitation

The study is delimited to the staff nurses who are working in the intensive care units.

Hypothesis

Hypothesis will be tested at 0.05 level of significance

H_0 – There will be no significant difference between pre test and post test knowledge score regarding varicose veins among staff nurses working in intensive care units.

H_1 – There will be significant difference between pre test and post test knowledge score regarding varicose veins among staff nurses working in intensive care units.

Conceptual Framework

The conceptual framework used in the study was based on Ersestine Wiedenbanch's "prospective theory".[8]

Review of literature:

In the present study the reviewed of literature has been organized into the following categories:

1. Literature related to varicose vein
2. Literature related to nurses
3. Literature related to effectiveness of Self instructional module

Methodology

Research approach: In this study quantitative research approach is used.

Research design: In this study the pre experimental pre test and post test one group research design is used.

Setting of the study: Lata Mangeskar hospital, Nagpur.

Independent variable:

Self instructional module on knowledge regarding varicose vein.

Dependent variable:

The dependent variable in this study is knowledge regarding varicose vein.

Demographic variable:

It includes age, gender, education, marital status, area of residence, monthly family income, year of experience, present work area, etc.-

Population:

Target population: All the staff nurses were working in intensive care units of the selected hospital of the city.

Accessible population

It comprises of staff nurses working in intensive care units of the selected hospitals of the city and are available at the time of data collection and who were fulfilling the inclusive criteria.

Sampling

Sample: Registered staff nurses working in intensive care units of the selected hospitals of the city who were available during the time of data collection.

Sample size: 60 staff nurses selected for the study.

Sampling technique: Non probability purposive sampling technique was adopted for study.

Sampling criteria:

Inclusive criteria:

1. Registered nurses having RGNM, B.Sc. nursing and P.B.B.Sc. Nursing/ P.C.B.Sc. Nsg. qualification.
2. Working in intensive care unit
3. Able to read and understand English.
4. Willing to participate in study.
5. Available at the time of data collection.

Exclusive criteria: Staff nurses who are

1. Working in other areas than intensive care units.

Description of tools

Section A–Demographic variables

Section B–Self structured knowledge questionnaire

Section C–Self instructional module on varicose veins

Validity

Content and construct validity of tool was determined by 20 experts including medical surgical nursing subjects experts, cardiologist and statistician etc.

Reliability

Karl Pearson correlation coefficient formula was used. The correlation coefficient 'r' of the questionnaire was 0.8372, which is more than 0.8. Hence the questionnaire was found to be reliable.

Pilot study: was conducted from 4th November 2018 to 11th November 2018 for a period of 7 days. The pilot study was feasible in terms of time, money, material and resources.

Data collection

The main study data was gathered from 12 December 2018 to 5 January 2019. Permission was obtained from concerned authority. The samples were approached in small groups on a daily basis. Before giving the questionnaire self introduction was given by the investigator and the purpose of the study mentioned. Consent of the samples were taken. The pre test questionnaire were distributed to the samples and collected back after 38 minutes. After the pre test the investigator administered the treatment (SIM). After 7 days post test was taken.

Result

Section–I: Description of staff nurses working in intensive care unit with regards to their demographic variables.

The table no. 1 shows that majority of the 58.3% of the staff nurses were in the age group of 21-30 years, while majority of the subjects 90% were females. Educational status reveals that 96.7% of them were educated up to GNM/ RGNM, while majority of the subject 68.3% of them were married, majority of subjects 53.3% were residing in the urban area, 45% of the staff nurses having monthly family income below 10,000 Rs., While majority of subjects 53.3 % of them had working experience in intensive care unit of 1-5 years. Majority of subjects 50 % of them were working in MICU.

Section–II: Description on pre test and post test knowledge score of staff nurses working in intensive care unit regarding varicose veins.

Section–III: Description on the effectiveness of SIM on knowledge of staff nurses working in intensive care unit regarding varicose veins.

Table 3 shows that the overall mean knowledge scores of pre test and post test which reveals that post test mean knowledge score was higher 25.16 with SD of ±3.74 when compared with the pretest mean knowledge score value which was 13.10 with SD of ± 3.54. The calculated 't' value 30.13 is greater than table value 2.00 at 0.05 level of significance. Hence it is statistically interpreted that the self instructional module on knowledge regarding varicose veins was effective. Thus the H1 is accepted and H0 is rejected.

Section IV: Description on association on knowledge with selected demographic variables.

The analysis shows that the present work area was associated with knowledge score while none of the other demographic variables were associated with knowledge score.

.**Table 1:** Table showing frequency and percentage wise distribution of staff nurses according to their demographic variable
n = 60

.SR. NO	Demographic variables		(Frequency (f	(%) Percentage
	Age (in year)	.yrs 21-30	35	58.3
		.yrs 31-40	15	25
		.yrs 41-50	10	16.7
		.yrs 51≤	0	0
	Gender	Male	6	10
		Female	54	90
	Education	GNM/RGNM	58	96.7
		B. Sc./B.B. Sc. Nursing	1	1.7
		P.C.B.Sc./P.B. BSc Nursing	1	1.7
	Marital status	Married	41	68.3
		Unmarried	19	31.7
		Divorced	0	0
		Separated	0	0
		Widow/Widower	0	0
	Area of residence	Rural	24	40
		Urban	32	53.3
		Semi Urban	4	6.7
	Monthly family income ((in rupees	10000>	27	45
		10001-15000	11	18.3
		15001-20000	8	13.3
		20001≤	14	23.3
	Year of experience	.yr 1>	2	3.3
		.yrs 1-5	32	53.3
		.yrs 5-10	16	26.7
		.yrs 10<	10	16.7
	Present work area	MICU	26	43.3
		SICU	18	30
		PICU	9	15
		Neonatal ICU	7	11.7

Table 2: Table showing comparison of pre test and post test knowledge grading score.

n=60

Grading	**Pre test**		**Post test**	
	Frequency	Percentage	**Frequency**	Percentage
Excellent	0	0 %	35	58.33 %
Very Good	4	6.67 %	18	30 %
Good	26	43.33 %	7	11.67 %
Average	27	45 %	0	0 %
Poor	3	5 %	0	0 %

Table 3: Table showing effectiveness of self instructional module on knowledge regarding varicose vein among staff nurses working in intensive care unit.

n=60

Test	Mean	SD	Mean Difference	Calculated t-value	DF	Table value	p-value
Pre Test	13.10	3.54	12.06	30.13	59	2.00	0.002 Highly significant
Post Test	25.16	3.74					

Level of significance p<0.005

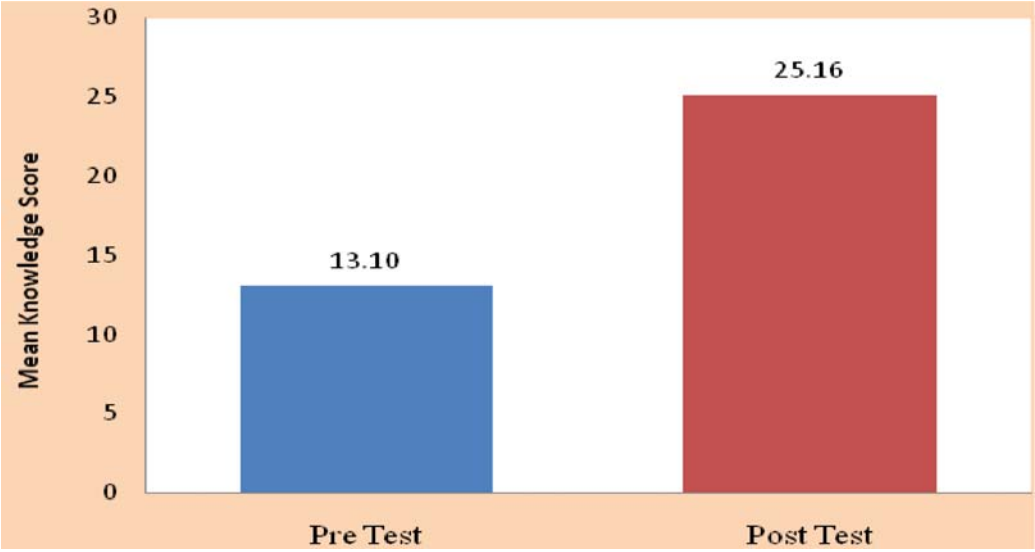


Fig. 2: Bar diagram representing effectiveness of SIM on knowledge regarding varicose vein among staff nurses working in intensive care unit.

Discussion

Vinil Upendra babu, Rajat Singh, Afreen, Deeksha, Govind Kumar, have conducted A Study to assess the effectiveness of information booklet on knowledge regarding varicose vein and its prevention among staff nurses working in hospitals. The research approach for the study was pre experimental. In this study the pre test and post test one group research design was used. Sample size is 30 staff nurses taken from the Rama hospital, Kanpur. Non probability convenient sampling technique was used in which a sample is convenient to investigator with regards to the characteristics required under study. Consent of the samples was taken.The samples were approached in small groups on a daily basis. After getting the consent from the samples demographic data and knowledge were collected with the help of a structured questionnaire. The pretest knowledge on varicose vein was assessed on the first day of data collection then information booklet was given on the same day, after collecting the pre test questionnaire. After 7th day the knowledge was reassessed by the post test on the same sample by using the same tool.The total mean post-test knowledge score (12.6) was higher than the mean pretest score (8.73). Hence the study was Statistical significant at 0.005 levels. Therefore it is statistically conclude that there was a significant improvement in the knowledge level of staff nurses after the administration of information booklet. So, information booklet is an effective strategy to improve the knowledge among staff nurses.[9]

In above study the total mean post-test knowledge score (12.6) was higher than the mean pretest score (8.73). Similarly in present study the total mean post-test knowledge score (25.16) was higher than the mean pre test score (13.10). So, self instructional module is an effective strategy to improve the knowledge among staff nurses working in intensive care unit.

Dr. Ravindra H.N, Mr. Ashish Thakor, Mr. Kevin Christian, have conducted a study on knowledge regarding risk factor and preventive measures of varicose vein among staff nurses.The setting of the study at Dhiraj general hospitals, waghodia, Vadodara. In this study an evaluative research approach was adopted and non-experimental descriptive research design was used. The non-probability convenience sampling technique was

used. The Majority (73.33 %) of staff nurses belong to the age group of 20-25 years, Majority ofstaff nurses (46.6%) were having 1-3 years work experience, majority (73.3%) staff nurses are belong from urban area, majority (61.7%) staff nurses are female, majority (73.3%) of staff nurses has studied B.Sc. Nursing. and the majority of the staff nurses (70%) had moderate knowledge, 20 % had adequate knowledge score and 10% had inadequate knowledge regarding risk factor and preventive measures of varicose vein. Hence result concluded that there was no significant association between age, and knowledge, experience and knowledge, residency and knowledge, gender and knowledge, education and knowledge regarding risk factor and preventive measures of varicose veinat 0.05 level of significance.[10]

The above study reveals that there is a significant association between education and knowledge regarding risk factor and preventive measures of varicose vein. While in my present study reveals that there is significant association of knowledge score with present work area.

Conclusion:

Thus it was concluded that self instructional module on knowledge regarding varicose veins among staff nurses working in intensive care unit of selected hospitals of the city was found to be effective as a teaching strategy to improve their knowledge. Hence, based on the above cited research findings, it was concluded undoubtedly that the written prepared material by the investigator in the form of self instructional module helped the staff nurses to increase knowledge regarding varicose vein.

Implication of the study:-

The findings of this study have implications for nursing practice, nursing education, nursing administration, and nursing research.

Nursing practice:

- Health care services are an essential component of community health care nursing, the role of the personnel is to conduct and participate in national programme to increase knowledge related to varicose vein among staff nurses.
- It will also help the nurses to keep update knowledge regarding varicose vein
- When professional liability is recognized, it defines the parameters of the profession and the standards of professional conduct. Nurses should therefore enhance their professional knowledge.
- Self instructional module would serve as a ready reference material for the health team members. The information is particularly useful for the nurses for educating the relatives and other health team members the benefits of varicose vein.

Nursing education:

- Nurse who are up to date with the knowledge regarding varicose vein are the better person to impart their knowledge to the nursing student which will ultimately decrease the mortality related to venous diseases.
- Now days, much emphasis is given on comprehensive care in the nursing curriculum. So this study can be used by nursing teachers as an informative illustration for nursing students.
- Self instructional module could help educators to use it as a tool for teaching.
- Students must be given clinical field assignment, in which they must be given opportunity to interact with people and create awareness regarding varicose vein.
- Teacher training programs must also include the varicose vein.

Nursing administration:

- Findings of the study can be used by the Nursing Administrator in creating policies and plans for providing education to the staff nurses and health professionals.
- It would help the nursing administrators to be planned and organized in giving continuing education to the nurses and to others for applying and updating the knowledge regarding varicose vein.
- In-service education must be conducted for the nurses to create awareness regarding varicose vein.

Nursing research:

- The findings of the study have added to the existing body of the knowledge in relation with knowledge of varicose vein which will enhance the knowledge and would help to keep it updated.
- Other researchers may utilize the suggestions and recommendations for conducting further study.
- The tool and technique used has added to the body of knowledge and can be used for further references.

Limitation:-

- The study was conducted only on staff nurses.
- The sample size was small to generalize the findings of the study.
- The study was limited to measure the knowledge of staff nurses in selected hospitals of the city.
- The tool for data collection was prepared by investigator herself. Standardized tool was not used.

Recommendations:-

- A similar study can be replicated on a larger population for a generalization of findings.
- A Study may be conducted to evaluate the effectiveness of planned teaching programme on knowledge regarding varicose vein.
- A similar study can be carried out to evaluate the effectiveness of video assisted teaching programme on knowledge regarding varicose vein.
- A descriptive study can be carried out to assess the prevalence of varicose vein among staff nurses working in intensive care unit.
- A descriptive study can be carried out to assess the prevalence of varicose vein among staff nurses working in operation theatre.

Reference

1. Waugh Anne and Allison Grant. Anatomy and Physiology. 11th edition. China. Elsevier publication. 2010. 75-76. Cited on 5-2-18 at 10:00pm.
2. Black Joyce. Medical surgical nursing. 7th edition. volume 1. evolve publication. 1538-1539. Cited on 4-2-18 at 10:30 pm.
3. Lippincott Williams and Wilkins. Manual Nursing Practice. eighth edition. JP publications. 2006. 442. Cited on 4-2-18 at 10:00pm.
4. (https://en.wikipedia.org/wiki/Varicose_veins cited on 18-8-18 at 7:30 pm).
5. Janbon C, et al. J Mal Vasc. 1994:19(3). Page no. 210-15. Online–Htttps://www.ncbi.nlm.nih.gov/m/pubmed.cited at 18-818.
6. https://www.sigvaris.com/global/en/indications/varicose-veniscited on 5-2-18 at 11:00 pm.
7. MoneimFatma Abdel, OSR journal of nursing and health science (IOSR-JNHS) e-ISSN:2320-1959 ISSN: 2320-1940 volume 5, Issue 6 ver. V (Nov-Dec. 2016). 47-65. Available on :www.iosrjournals.org cited on 25-2-18.
8. Sharma SK nursing research and statistics. 2nd edition. Reed Elsevier India private limited;2014. Page no.289, 25, 101-102,30, 31, 331. Online : http://currentnursing.com/nursing_theory/Ernestine_Wiedenbach.html at 6:20 pm on 31/11/18.
9. International journal of nursing research, Volume No. : 6 Issue No. : 4 Year : 2018 ISSN Print : 2347-8640 ISSN Online : 2454-2660 cited on 27-1-19 at 7:00pm.
10. Dr. Ravindra H.N, Mr. Ashish Thakor, Mr. Kevin Christian Volume-8 | Issue-6 | June-2018 | ISSN - 2249-555X | IF : 5.397 | IC Value : 86.18.

Indian Journal of Surgical Nursing

Library Recommendation Form

If you would like to recommend this journal to your library, simply complete the form given below and return it to us. Please type or print the information clearly. We will forward a sample copy to your library, along with this recommendation card.

Please send a sample copy to:

Name of Librarian

Name of Library

Address of Library

Recommended by:

Your Name/ Title

Department

Address

Dear Librarian,

I would like to recommend that your library subscribe to the Indian Journal of Surgical Nursing. I believe the major future uses of the journal for your library would provide:

1. Useful information for members of my specialty.
2. An excellent research aid.
3. An invaluable student resource.

I have a personal subscription and understand and appreciate the value an institutional subscription would mean to our staff.

Should the journal you're reading right now be a part of your University or institution's library? To have a free sample sent to your librarian, simply fill out and mail this today!

Stock Manager
Red Flower Publication Pvt. Ltd.
48/41-42, DSIDC, Pocket-II
Mayur Vihar Phase-I
Delhi - 110 091(India)
Phone: Phone: 91-11-45796900, 22754205, 22756995, Cell: +91-9821671871
E-mail: sales@rfppl.co.in

Orignal Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.3

Effectiveness of Magnesium Sulphate with Glycerine", For Reducing Inflammation Among Patients with Peripheral Intravenous Cannula Induced Phlebitis

P Saktisvary

Abstract

Introduction: In most ofthe medical and surgical interventions intravenous infusion plays very essential role.The fluids imbalances may result from many factors like injury, surgery and differentkinds of medical illnesses. These imbalances can be corrected by intravenous therapy. Due to the presence of in situ intravenous catheter for long time often inflammatoryreactions occur at that site leading to redness, swelling, pain and fever, that is howphlebitis manifests. Later if phlebitis not treated early this can lead to the formation of thromboembolism. *Method*: In this study quasi-experimental research approach was used. Non probability purposive sampling technique was used to select the sample from the selected hospital. The research design adopted for the study was pre-test, post-test control group design. In the present study a sample of 60 hospitalized patients and who met the inclusion criteria was selected from the target population. In this study the instruments used are baseline Performa, structured interview schedule to assess the subjective symptoms and observation scale to observe the objective symptoms. *Result*: In experimental group post test mean score 1.10, Standard deviation was 0.71 respectively. In control group post test mean score 2.53, Standard deviation was 0.78 respectively. The obtained value 7.454 statistically was significant at 0.001 levels. So research hypothesis was acceptd. So there was significant difference between post intervention phlebitis among the experimental group and control group. *Discussion*: In the research study findings revealed that Magnesium sulphate with Glycerin dressing is highly effective in decrease phlebitis level to the patients.

Keywords: Magnesium sulphate with Glycerin dressing; Peripheral Intravenous infusion induced Phlebitis; Effectiveness.

How to cite this article:
P Saktisvary, Effectiveness of Magnesium Sulphate with Glycerine", For Reducing Inflammation Among Patients with Peripheral Intravenous Cannula Induced Phlebitis. Indian J Surg Nurs. 2020;9(2):75–78.

Introduction

In modern medical practice most ofthe hospitalized patients receive intravenous therapy . Among those some goes for phlebitis that is caused by the inflammation of tunica intima of a superficial vein due to irritation of the tunica by mechanical, chemical or bacterial sources. It is estimated that in U.K 80% of patients with peripheral venous cannula develop phlebitis and to determine the incidence of peripheral intravenous therapy-related phlebitis in an adult population, results showed that phlebitis rate was 3.3% (10/305).

Author Affiliation: Assistant Professor, Department of Medical-Surgical Nursing, Con, Mtpg and Rihs, Indra Nagar, Puducherry.

Corresponding Author: P Saktisvary, Assistant Professor, Department of Medical-Surgical Nursing, Con, Mtpg and Rihs, Indra Nagar , Puducherry.

E-mail: saktiakshara@gmail.com

Administering drugs or fluids being infused through cannula. Factors such as pH and osmolarity of substances have a significant effect on the incidence of phlebitis. If left untreated, it can lead to infection or thrombus formation. Hence it is essential for the nurses to manage the patients with phlebitis which can promptly be prevented. Chemical phlebitis can be caused by an irrigating medication or solution (increased pH or high osmolarity of a solution), rapid infusion rates. Mechanical phlebitis results from long periods of cannulation, catheter in flexed areas, catheter gauges larger than the vein lumen, and poorly secured catheters. Bacterial phlebitiscan occur if proper aseptic techniques are not carried out inserting intravenous catherter.

Other factor is poor venipuncture technique phlebitis is characterized by reddened warm area around the insertion site or along the path of the vein, pain or tenderness at the site or along the swelling. Treatment consists of discontinuing the

IV line and restarting it in another site and applying a warm, moist compress to the affected site. Measures taken to prevent phlebitis are aseptic technique during insertion should be taken care , using the appropriate-size cannula or needle for the vein, considering the composition of the fluids and medications when selecting a site and observing the site hourly for complications like phlebitis, infection, infiltration, overload, hypothermia and embolism.

Magnesium sulfate is a colorless, odorless and a solid substance. It is slightly bitter in taste. It is highly soluble in inorganic solvents like water. It is partially soluble in organic solvents, like glycerin and alcohol. Magnesium sulfate in its anhydrous form is hygroscopic. It has a tendency to attract moisture.

Objectives:

1. To assess the pretest intervention phlebitis in experimentalgroup.
2. To assess the pretest intervention phlebitis in control group.
3. To assess the post intervention phlebitis in experimentalgroup.
4. To assess the post intervention phlebitis in control group.
5. Determine the effectiveness of magnesium sulphate withglycerindressing on phlebitis among patient.

Materials and Methods

Type of the study: Experimental study

Ethical clearance was obtained from ethical committee and informed consent was taken from the participants. Duration of the study is 2 years. Sampling technique: Non probability convenient sampling technique was used in this study. In this study 60 patients was selected 30 for experimental group and 30 for control group.

Inclusion criteria:

Patients with peripheral intravenous cannula induced phlebitis who were:

- available during the period of data collection.
- willing to participate in the study.
- Conscious

Exclusion criteria:

Patients with phlebitis who were:

- having skin disorder, poor skin condition, and abscess seen at the puncture site.
- with open wound.
- not willing to participate in the study.

*Methodology***:**

In this study quasi-experimental research approach was used. The research design adopted for the study was pre-test, post-test control group design.

Grouping: There were two groups experimental and control group.

In this study the instruments used are baseline Performa, to assess the subjective symptoms and observation scale to observe the objective symptoms. Jackson's visual infusion phlebitis scale is use for measure the phlebitis according to this score.

There are different stages from score 0 to 5.

- Score 0 is no signs ofphlebitis.
- Score 1 is possibly first sign ofphlebitis.
- Score 2 is early stage ofphlebitis.
- Score 3 is medium stage ofphlebitis.
- Score 4 is advanced stage of phlebitis or start of thrombophlebitis.
- Score 5 is Advanced stage Thrombophlebitis. Patients who are getting score 3, 4, 5 according to scale, to those patients apply glycerin magnesium sulphate dressing at affectedsite,

The study conducted in the following phases,

Phase 1: Pre test level of Phlebitis was assessed using Jackson's visual infusion phlebitis scale.

Phase 2: 20gram of magnesium sulphatediluted in 100 ml of glycerin and this combination `is applied on site of phlebitis with help of roller bandage and the limb was elevated. This procedure was repeated two times in a day continuous for 2days

Phase 3: After second application of intervention the post test level of Phlebitis assessed by using the Jackson's visual infusion phlebitis scale.

Results

Table 1: Analysis of observational score on effectiveness of magnesiumsulphate with glycerin dressing on phlebitis among patient with peripheral intravenous cannula.

	Group	N	Mean	Standard Deviation	Std. Error Mean	Mean Difference	T Value	P Value
Post	Experimental	30	1.10	0.71	0.130	-1.43	7.454	<0.001
	Control	30	2.53	0.78	0.142			

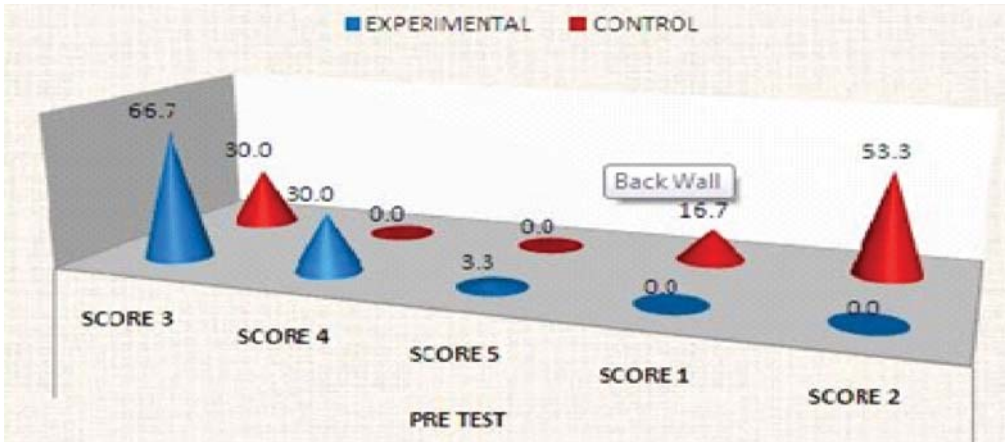


Fig 1: Cone diagram showing Pre Test Phlebitis Level among Experimental Group and Control Group

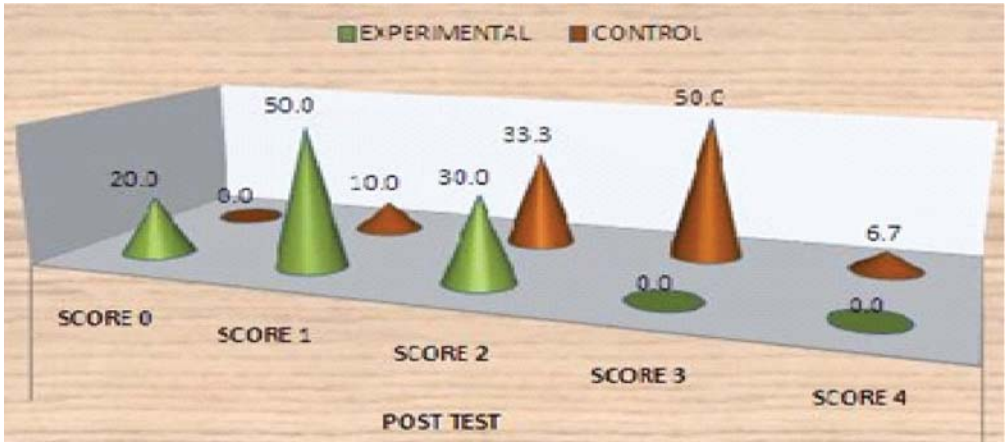


Fig 2: Bar diagram showing Post Test Phlebitis Level among Experimental Group and Control Group

Discussion

The main purpose of this analysis was conducted a experimental study was conducted in a selected hospital at puducherry the effectiveness of magnesium sulphate with glycerine on patients with phlebitis related to peripheral intravenous infusion. The sample consisted of 45 subjects who had developed intravenous infusion related phlebitis, the clinical features of phlebitis were measured by phlebitis measurement chart, erythema observation check list and pain scale. Three treatments were administered to 15 patients each for 3 days two times a day. The data analyzed by using ANOVA and't'test. The findings of the study revealed that among the three modalities of treatment of phlebitis, it was found that magnesium sulphate with glycerine dressing was most effective in reducing in duration, swelling, palpable venous cord, erythema and pain at p<0.001. The pre-treatment pain score were 7.67 and it was reduced to 1.47 on the 3rd post-treatment day. The pre test of experimental group that majority 20(66.7%) hospitalized patienthad medium stage of phlebitis, 9(30%) hospitalized patient had Advanced stage of phlebitis or start of thrombophlebitis and 1(3.3%) hospitalized patient had Advanced stage Thrombophlebitis.

The pre test of control group that majority 9(30%) hospitalized patient had medium stage of phlebitis, 5 (16.7%) hospitalized patient had possibly first signs of phlebitis and 16 (53.3%) hospitalized patient had Early stage of phlebitis.

The post test of experimental group that majority 15(50%) hospitalized patient had possibly first signs of phlebitis, 9(30%) hospitalized patient had Early stage of phlebitis and 6(20%) hospitalized patient had no sign of phlebitis.

The post test of control group that majority 15 (50%) hospitalized patient had medium stage of phlebitis, 10 (33.3%) hospitalized patient had Early stage of phlebitis had possibly first signs of phlebitis, 3 (10%) hospitalized patient had possibly first signs of phlebitis and 2 (6.7%) hospitalized patient had Advanced stage of phlebitis or start of thrombophlebitis.

In experimental group post test mean score 1.10, SD was 0.71 respectively. In control group post test mean score 2.53, SD was 0.78 respectively. The obtained value 7.454 statistically was significant at 0.001 level. So research hypothesis was accepted.

Conclusion

The study result showed that magnesium sulphate with glycerine application was effective in relieving pain and inflammation level among the IV infusion patients. This being a cost effective procedure and convenient measure, magnesium sulphatewith glycerine application can be administered to treat the peripheral intravenous cannula induced phlebitis by nurses in their day to day caring for the IV infusion patients in IGGGH and PGI,Puducherry hospital setting.

References

1. Higginson R, Parry A. phlebitis: treatment, care and prevention. Nursing times 2011 September 13;107(36):18–21
2. Sherril A RN, White J. Intravenous therapy–related phlebitis rates in an adult population. Journal of IV nursing.2001;24(1):19–24
3. Smeltzer SC, Bare BG, Hinkle JL, Cheever KH. Brunner and Suddarth's Text book of Medical-Surgical Nursing. 12th ed. New Delhi (India): Wolters Kluwer; 2010;1:308-09.
4. Kagel EM, Rayan GM. Intravenous catheter complications in the hand and forearm. J Trauma [serial online] 2004;56(1):123–7.
5. Martin D, Joshy M, Jain N. Effectiveness of Planned Teaching Programme Regarding Peripheral Intravenous Infusion among Staff Nurses. Ind J N Stud 2011; 2(1):45–50.
6. Waitt C, Waitt P, Pirmohamed M. Intravenous Therapy. [Online]. 2004 [cited 2011 Nov 13]
7. Zheng GH, Yang L, Chu JF, Chen HY. Aloe Vera for Prevention and Treatment of Infusion Phlebitis. [Online]. [2011?] [cited 2011 Nov 20];

Orignal Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.4

An Unknown Health Problem: Restless Leg Syndrome

Sophie Caleb

Abstract

Restless Legs Syndrome (RLS) is a disorder related to some neurological dysfunction.Inwhich an individual suffers severe impulses to shake their legs from left to right. They always experience a very discomfort sensation in their legs when theyremain still. People who are suffering from Restless Leg Syndrome have trouble sleeping because of this discomfort sensation and may experience these impulses several times during the night time. This reduces the quality of their sleep and making them feel drowsy during the day time. Restless Leg Syndrome also makes it difficult for those people who travel long distances by car or travel by air. RLS sometime becomes very stressful but with some medicinal treatment and lifestyle changes, it is almost always treatable and curable.

Keywords: Restless leg syndrome; Impulses; Neurological dysfunction.

How to cite this article:
Sophie Caleb, An Unknown Health Problem: Restless Leg Syndrome. Indian J Surg Nurs. 2020;9(2):79–80.

Introduction

Restless legs syndrome (RLS) is a neurological disorder that causes an overpowering impulses to move your legs. It is also known as Willis-Ekbom disease. Many Doctors do consider it as a sleep disorder because it usually happens or the condition gets worse while the person is at rest. The person might complaint about trouble sleeping or even sitting for a long time, such as in a cinema hall or in a car. It may get worse if the person will not get treatment. Anybody can get it, but it's more common in women, and middle-aged people both male and female and they are more likely to have severe symptoms if not corrected in the proper manner.

Restless Legs Syndrome Symptoms

People with restless legs syndrome have unusual feelings in their legs, like itching, crawling, throbbingpins and needles, which creates a very powerful impulse to move their legs to make that disturbing sensations go away. The condition can also happen in other areas of the body like the arms, chest, or head. This kind of feelings usually happen on both sides of the body. In some cases, it can happen on only one side, or sometime it may might start from one side and then move to the other.

A Case Study in Restless Leg Syndrome (RLS)

42 year old adult male person who was referred to the sleep disorders centre for insomnia, non-restorative sleep, and a feeling of uneasiness throughout the day.

Patient History and Examination: His sleep problems began during late adolescence and started with difficulty falling asleep. He also developed frequent awakenings throughout the night. Although he complained of irritating discomfort in his legs during the evening, the sleep disturbance had initially been ascribed to stress (related to job) and to hiswork place.

Review of sleep pattern: Prior to treatment, he used to go to bed around 11:00 PM and usually fell asleep within 30-45minutes. But he used to get up when he gets disturbed with his legs. In such cases, he had to get up repeatedlyto walk off his legs at such times, sleep onset might be delayed for 1-2 hours. Once asleep, he uses to woke up for 3-5 times per night with achy legs.

Evaluation and Diagnosis: A complete physical examination was done and documented the

Author Affiliation: Associate Professor, MKSSS, College of Nursing for Women, Mouje Sukli (Gupchup), Tal. Hingana, Nargundkar Shaikshanik Prakalp, Nargundkar layout, nearTajashreehonda showroom, Deonagar,Nagpur

Corresponding Author: Sophie Caleb, Associate Professor, MKSSS, College of Nursing for Women, Mouje Sukli (Gupchup), Tal. Hingana, Nargundkar Shaikshanik Prakalp, Nargundkar layout, near Tajashreehonda showroom, Deonagar, Nagpur, India.

E-mail: sophiepcaleb@gmail.com

existence of periodic limb movements during sleep, and ruled out as a sleep disorder. On the basis of his history, he was diagnosed with Restless Legs Syndrome.

Treatment: Sleep health measures were started, along with relaxation training, with a leg exercise regime to be done almost daily. The bedroom clock was removed. These measures did little to decrease his RLS symptoms. If RLS is mild or moderate, some small changes in everyday life might help, and also to avoid caffeine is advised.

Other ways to treat RLS without drugs include:

- Leg massages, if possible, every day.
- Hot bathsspecially before sleep will work.
- Heating pads or ice packs on legs when it became more restless.
- To use a vibrating pad called Relaxis, if possible.

Conclusion

Restless legs syndrome, it is an intrinsic sleep disorder, and it is only a clinical entity. In which the diagnosis is done exclusively on clinical basis. It is important to recognize this syndrome as effective management can cause considerable relief of symptom and improve the quality of life.

References

1. Walters AS. Toward a positive definition of the restless leg's syndrome. MovDisord. 1995;10:634–42.
2. Aul EA, Davis BJ, Rodnitzky RL. The importance of serum iron studies in the assessment of restless legs syndrome. Neurology. 1998;51:912.
3. Goodman JD, Brodie C, Ayida GA. Restless leg syndrome in pregnancy. BMJ. 1988;297:1101–2.
4. Wetter TC, Stiasny K, Kohnen R, Oertel WH, Trenkwalder C. Polysomnographic sleep measures in patients with restless legs syndrome. MovDisord. 1998;13:820–4.
5. Winkelman JW, Chertow GM, Lazarus JM. Restless legs syndrome in last stage renal disease. Am J Kidney Dis. 1996;28:372–8.

Orignal Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.5

Effectiveness of Ice Pack Application on Phlebitis Among Patients with Peripheral Intra-venous Cannula Induced Phlebitis

P Saktisvary

Abstract

"A study to assess the effectiveness of ice pack application on pain and inflammation response during intravenous cannula insertion among patients admitted in Government General Hospital, At Puducherry."

Intravenous fluid therapy is an invasive procedure which may increase the risk of patient complications. One of the most common of these is phlebitis, which may cause discomfort and tissue damage. Therefore, a nursing intervention is needed to effectively treat phlebitis. The purpose of this study was to investigate the effectiveness of applying a warm compression intervention to reduce the degree of phlebitis. A quasi-experimental study with nonequivalent control group pre-test-post-test design was used for the study with objective to compare the efficacy of cold application in relieving phlebitis among patients receiving intravenous therapy. Convenient sampling technique was used for selecting 30 patients having phlebitis; phlebitis was assessed using visual infusion phlebitis scale. The findings of the present study suggest that ice pack application was effective on phlebitis.

Keyword: Intravenous therapy; Ice pack application; phlebitis.

How to cite this article:

P. Saktisvary, Effectiveness of Ice Pack Application on Phlebitis Among Patients with Peripheral Intra-venous Cannula Induced Phlebiti. Indian J Surg Nurs. 2020;9(2):81–84.

Introduction

Peripheral intravenous cannulation is a common procedure carried out in hospitals to allow rapid and accurate administration of medication. However, the placement of an intravenous cannula can have undesirable effects, the most common of which is phlebitis. Phlebitis is a complication that is frequently associated with intravenous therapy. A number of literature articles have written that phlebitis can occur in as much as 25–70% of patients. Phlebitis is defined as the acute inflammation of the internal lining of the vein. Phlebitis is characterized by pain and tenderness along the course of the vein, redness and swelling and warmth can be felt at the insertion site. Phlebitis can be classified into three categories: mechanical, chemical or infusion, and bacterial.

Author Affiliation: Assistant Professor, Department of Medical Surgical Nursing, Con, Mtpg and Rihs, Indra Nagar, Puducherry

Corresponding Author: P Saktisvary, Assistant Professor, Department of Medical Surgical Nursing, Con, Mtpg and Rihs, Indra Nagar, Puducherry

E-mail: saktiakshara@gmail.com

Materials and Methods

A quasi-experimental study with nonequivalent control group pre-test-post-test design was used for the study. The study was conducted in IGGGH and PGI at puducherry.

Ethical clearance from institutional ethical committee and the administrative permissions from govt general hospital were taken. Anonymity and confidentiality of the subjects were maintained while carrying out the study. Informed consent was obtained from the subjects. Attribute variables of the study were; independent variable: ice cold application, dependant variable: phlebitis.

Inclusion Criteria Included

1. Patients aged between 20–55years;
2. Patients who are willing toparticipate;
3. Patients who are receiving intravenous antibiotics and intravenousfluids;
4. Patients who are not suffering from any other skin disorders.

Exclusion Criteria Included

1. Patients who are having skin disorder and abscess seen at the puncture site.
2. Patients who are not willing to participate in the study.
3. Patients receiving total parenteral nutrition (TPN).

Convenient sampling technique was used for selecting 30 patients having phlebitis, from which 15 were in experimental group and 15 were in the control group. Cold application (ice pack) in experimental group was applied for three times a day for 20 min for three days and in control group was applied for three times a day for three days. Phlebitis was assessed using visual infusion phlebitis scale.

Results

Section I

This section is divided into two parts:

(i) Findings related to demographic characteristics of the subjects in experimental and controlgroup.

(ii) Findings related to clinical profile (information related to cannulation) of the subjects in experimental and control group.

Section II

Findings related to mean pre-test and post test scores of phlebitis in the experimental group. Section III

Findings related to mean pre-test and post test scores of phlebitis in the control group.

Section IV

Findings related to mean post-test scores of phlebitis in experimental and control group.

The data presented in the Table 1(a) shows the following findings:

- Regarding the age of the subjects; data revealed that in the experimental group, majority of samples belonged to the age group of 20–29 years which is 8 (53.3%). Whereas in the control group, majority of samples belonged to the age group of 30– 39 years which is 6(40.0%).
- Regarding the gender; data revealed that in experimental group, majority of the samples 9 (60.0%) were males. Whereas in control group, majority of the samples 10 (66.7%) werefemales.
- Regarding the educational qualification; data revealed that in the experimental group, maximum number of samples 8 (53.3%) had primary education,whereas in control group, most of the subjects 9 (60.0%) had no basic education.
- It can be concluded from Table 1(a) that p values calculated using chi-square and fisher's exact test are more than 0.05, and are therefore not significant. So, both groups are homogenous

Table 1(a): Comparison of Sample Characteristics (Age, Gender, Educational Qualification) of the Subjects in Terms of Frequency and Percentage in Experimental and Control Group. $n_1+n_2=30$

S. No.	Sample Characteristics	Experimental Group (n_1=15)		Control Group (n_2=15)		df	Test Applied	p Value
		Frequency	Percentage	Frequency	Percentage			
	Age (in years)							
1.	a)20–29	8	53.3	3	20.0	2	Fisher exact	0.054
	b) 30–39	1	6.7	6	40.0		test	
	c) 40, and above	6	40.0	6	40.0			
2.	Gender							
	Male	9	60.0	5	33.3	1	Chi-sqaure	0.272
	Female	6	40.0	10	66.7			
	Educational qualification							
	a) No basic	2	13.3	9	60			
3.	Education (Illiterate)					3	Fisher exact	0.049*
	b) Primary education	8	53.3	3	20		test	
	c) Secondary	4	26.7	3	20			
	education							
	d) Graduation	1	6.7	0	0			

.$p<0.05$, *Significant

Table 1(b): Comparison of Clinical Profile (Duration of Cannula, Size of Cannula, Site of Cannula, and Type of Fluid Infused) of the Subjects in Terms of Frequency and Percentage in Experimental and Control Group.

$n_1+n_2=30$.

S. No.	Sample Characteristics	Experimental Group (n_1=15)		Control Group (n_2=15)		df	Test Applied	p Value
		Frequency	Percentage	Frequency	Percentage			
1.	Duration of the cannula (in days) a) 1–2							
	b)3–4	1	6.7	4	26.7	2	Fisher exact test	0.239
	c)5–6	13	86.7	9	60.0			
		1	6.7	2	13.3			
2.	Size of the cannula (in gauze)							
	18	2	13.3	2	13.3	2	Fisher exact test	0.500
	20	8	53.3	5	33.3			
	22	5	33.3	8	53.3			
3	Site of cannula							
	Basilic (a	1	6.7	1	6.7	2	Fisher exact test	0.510
	Cephalic (b	7	46.7	4	26.7			
	Metacarpalveins (c	7	46.7	10	66.7			
4	Type of fluid infused							
	Crystalloids (a	10	66.7	9	60.0	2	Fisher exact test	0.591
	Blood based (b products	0	0	1	6.7			
	Othermedications (c	5	33.3	5	33.3			

.Not Significant, p>0.05

Table 2: Comparison of Pretest and Post Test VIP Scores in Experimental Group in Terms of Mean, Mean Difference ($M_{D)}$, Standard Deviation, Standard Error, 't' Value.

n_1=15

Research Group	Observation	Mean	M_D	SD	SE Mean	't' Value
Experimental group (n_1=15)	Pre-test	3.07	1.73	0.70	0.153	11.309*
	Post-test	1.33		0.49		

.$t'_{(14)=}$2.15, p<0.05, *Significant'

Table 3: Comparison of Pretest and Post Test VIP Scores in Control Group in Terms of Mean, Mean Difference ($M_{D)}$, Standard Deviation, Standard Error, 't' Value.

n_2=15.

Research Group	Observation	Mean	M_D	SD	SE Mean	't' Value
Control group ($n_{2=}$15)	Pre-test	3.07	1.80	0.59	0.145	12.435*
	Post-test	1.27		0.46		

'$t'_{(14)=}$2.15, p<0.05, *Significant.

Table 4: Comparison between the Post-Test VIP Scores in the Experimental and Control Group in Terms of Mean, Mean Difference ($M_{D)}$, Standard Deviation, Standard Error, 't' Value.

$n_1+n_2=30$

Research Group	Observation	Mean	MD	SD	SE	't' Value
Experimental group (n_1=15)	Post-test	1.33	0.06	0.49	0.211	0.28
Control group ($n_{2=}$15)	Post-test	1.27		0.46		

't'(28)=2.05, p>0.05.

in the above mentioned aspects except for educational qualification (p=0.049).

- The data presented in the Table 1(b) shows the followingfindings:
- Data revealed in experimental group, 13 (86.7%) were having cannula duration 3– 4 days and in control group, 9 (60.0%) of the subjects were having cannula duration 3–4 days.
- Data revealed that in experimental group; 20G cannula were used in most of the subjects i.e. 8 (53.3%). Whereas incontrol group; 22G cannula were used, i.e. 8 (53.3%).
- Data revealed that Metacarpal vein 7 (46.7%) and cephalic vein 7 (46.7%), were the preferred site of cannulation for most of the subjects in the experimental group. Whereas in control group preferred site of cannulation for most of the subjects were metacarpal vein, 10(66.7%).
- Data revealed that type of fluid infused; majority of subjects in the experimental group were receiving crystalloids, i.e. 10 (66.7%). Whereas in control group majority of subjects were receiving 9 (60.0%)crystalloids.
- It can be concluded that all p values calculated using fisher's exact test are more than 0.05 and therefore not significant. So, both groups were homogenous in the above mentioned aspects.
- It can be also concluded that groups were homogenous in terms of pre-test VIP score as mean pre-test VIP scores (3.07) of experimental and control group were same.

The data presented in Table 2 showed that the mean pre-test VIP score (3.07) with SD=0.70 was more than the mean post-test VIP score (1.33) with SD=0.49 in the experimental group with mean difference of 1.73 which was found to be statistically significant as evident from 't' value (11.309) for df (14) at 0.05 level of significance. Thus, the null hypothesis H01 is rejected and research hypothesis H1 is accepted. Therefore, this indicates that cold application was effective in reducing phlebitis in the experimental group.

The data presented in Table 3 showed that the mean pre-test VIP score (3.07) with SD=0.59 was more than the mean post-test VIP score (1.27) with SD=0.46 in the control group with mean difference of 1.80 which was found to be statistically significant as evident from 't' value (12.435) for df (14) at 0.05 level of significance. Thus, the null hypothesis H02is rejected and research hypothesis H2 is accepted. Therefore, this indicates that ice pack application was effective in reducing phlebitis in the control group.The data presented in Table 4 shows that mean post-test VI Pscore1.33 with SD=0.49 of the experimental group is greater than the mean post-test VIP score 1.27 with SD=0.46 of the control group with the mean difference of 0.06 which is evident from 't' value (0.28) for df (28) at 0.05 level of significance which was not significant at 0.05 level. Hence null hypothesis H03 is accepted. Therefore there is no significant ice pack application in relieving phlebitis. This indicates that ice pack application treatments was effective in relievingphlebitis.

Conclusion

The findings of the present study suggest that cold application was effective on phlebitis.

Acknowledgement

All praise and thanks to the Almighty Allah, who guided and directed my life and bestowed blessings upon me in the form of strength, wisdom and enlightening force behind all my efforts in making this study a success. I would like to express my heartfelt thanks and gratitude to all faculties who guided me to complete this study. It is my privilege to convey my sincere gratitude and thanks to and the participants who had participated in this study.

References

1. Wallis P. Phlebitis. Originally Printed in Intravenous Nursing New Zealand inc. Newsletter, 2005, Intravenous Nursing, New Zealand. Available from http://www.ivnnz.co.nz/newsletter/Articles/Infection-Control/Phlebitis.
2. Baker LW, Webster DR. Postoperative Intestinal Motility. Br J Nurs. 55(11): 374–378p.
3. Rothnie, et al. Early Postoperative Gastrointestinal Activity. Ann Surg. 2002; 105(36):310–312p.
4. Wells, et al. Postoperative Gastrointestinal Motility. Br J Nurs. 2008; 2(21): 4–10p.
5. Marwah S, Singla S, Tinna P, et al. Role of Gum Chewing on the Duration of Post- Operative Ileus Following Ileostomy Closure Done for Typhoid Ileal Perforation: A Prospective Randomized Trial. Saudi J Gastroenterol. 2012; 18(2): 111–117p.

Review Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.6

Extra-Corporeal Membrane Oxygenation (ECMO)

Sheeja Sebastian[1], Sr. Philoresmi[2], Neethu Jose[3]

Abstract

Extracorporeal membrane oxygenation (ECMO) is a revamping techniques of conventional cardiopulmonary bypass which provide cardiopulmonary support. It is a form of extra corporeal life support when the persons heart and lungs are fail to provide gas exchange and circulation. In this system a cannula is placed in a large vein which carries deoxygenated blood from patient to a gas exchange device where blood enriched with oxygen and returned to the patient through other circuit. ECMO does not a definitive treatment option for the underlying disease, but it provides physiologic cardiopulmonary support to reversible aspects of the disease process and it promote recovery. Currently the indications for ECMO support ranging from acute respiratory failure to acute cardiac failure when patient is unresponsive to conventional treatments and using it for wide patient subsets involving neonates to adults.[1] The modes of support are either veno-venous or veno-arterial ECMO.

Keywords: Extracorporeal Membrane Oxygenation; Physiology; Venous–Arterial ECMO; Venous–Venous extracorporeal membrane oxygenation; Oxygenation.

How to cite this article:
Sheeja Sebastian, Sr. Philoresmi, Neethu Jose Extra-Corporeal Membrane Oxygenation (ECMO). Indian. J Surg Nurs. 2020;9(2):85–89..

Introduction

ECMO is a life-saving technique which carry out the natural function of the heart and lungs. It pumps deoxygenated blood from the body and oxygenates it in outside the body, allowing the heart and lungs to rest. When patient is connected to an ECMO, deoxygenated blood flows through a cannula to a membrane oxygenator in machine and returned the oxygenated warmed blood to body.[2] The term "extracorporeal life support" (ECLS) denotes prolonged but temporary (1–30 days) physiologic support of heart or lung using mechanical devices.

Author Affiliation: [1,3]Assistant Professor, Medical Surgical Nursing, Jubilee Mission College of Nursing, Thrissur Kerala, [2]Vice Principal and HOD Medical Surgical Nursing, Jubilee Mission college of Nursing, Thrissur.

Corresponding Author: Neethu Jose, Assistant Professor, Medical Surgical Nursing, Jubilee Mission college of Nursing, Thrissur, Kerala.

E-mail: agnesfeb9@gmail.com

ECMO is currently used at specialized centres to support patients with respiratory or cardiac failure who are unresponsive to conventional therapeutic interventions.[1] It provides rest to the organ while natural healing of the affected organs takes place.

Physiological goals of ECMO[1]

(1) Remove CO_2 and oxygenate the blood

(2) Improve tissue oxygen delivery

(3) Allow normal physiologic metabolic milieu at tissue level

(4) Provide lung rest and/or reduce cardiac function

Indication[3]

- As a bridge for recovery from Cardiac failure/ Respiratory failure / heart surgery.
- Support for high-risk procedures in cardiac catheterization lab.
- As a bridge to ventricular assist device (VAD) implantation.
- As a bridge for patients awaiting heart transplantation

- As a bridge for patients awaiting lung transplant

Contraindication[4]

Absolute contraindications

- Neurologic catastrophe(cerebral hemorrhage, infarction, edema)
- Moribund stage/terminal condition with markedly reduced life expectancy < 6 months
- Advanced incurable underlying disease(malignancy, cirrhosis, pulmonary hypertension,)
- Lack of informed consent

Relative contraindications

- Contraindication to anticoagulation(uncontrolled bleeding)
- Advanced age>70 yrs
- Multisystem organ failure
- Duration of mechanical ventilation greater than 7-10 days
- Marked obesity(weight>150 kg:due to excessive flow demands on the circuit)

Risks[5,9]

- Bleeding
- Infection at cannulation sites.
- Transfusion problems, due to emboli formation in the circuit.
- Limb Ischemia
- Air embolism

Candidates for ECMO[3]

Babies:

- Persistent Pulmonary Hypertension
- Meconium Aspiration Syndrome
- Sepsis or infection
- Pneumonia
- Congenital Diaphragmatic Hernia
- Congenital Heart Disease / Post-op Shock Lung
- Hyaline Membrane Disease.

Older children

- Post-op period of Cardiac repair
- Myocarditis
- Sepsis
- Pneumonia
- Aspiration Pneumonia
- Asthma
- Near Drowning
- Hydrocarbon Ingestion (turpentine)

Adults:

- Cardiac failure
- Respiratory Failure
- Bridge to VAD implantation and Heart transplantation

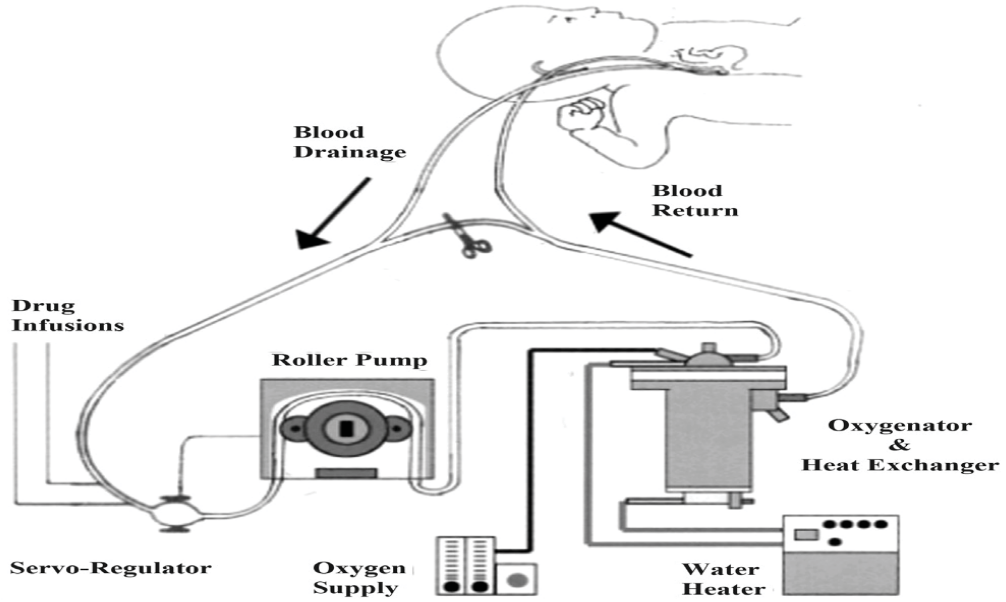


Fig. 1: ECMO circuit

The components include [Fig.1] mechanical blood pump (roller or impeller pump), gas exchange device (membrane oxygenator) and a heat exchanger. All are connected together with polyvinylchloride connecting tubing, connectors and a bladder reservoir. Wide Variety of ECMO circuits are available from simple to complex and it includes blood flow and pressure monitors, saturation monitors continuous oxyhemoglobin, circuit access sites. Blood is drained by the roller pump through the membrane oxygenator and passively drained by gravity from the venous circulation using a siphon height of 100 cm or more into a collapsible bladder. The bladder has a proximity switch to regulate the roller pump. The roller pump or centrifugal pump drain blood from the bladder and pushes it through silicone membrane then a heat exchanger before returning it to the patient. The bladder and pump are linked by a trip-switch mechanism so that if pump flow exceeds venous drainage, the bladder collapses to inhibit pump flow. Heparin is administered to the bypass circuit as systemic anticoagulation therapy, with monitoring of activated clotting time (ACT) and ACT should be maintained at 180-240 seconds.[1,3,6]

Types of ECMO circuits[1]

Circuits are broadly categorized into two types : veno-arterial (VA) and veno-venous (VV) ECMO

Table 1: Differences between veno-arterial and veno-venous extracorporeal membrane oxygenation

	Va Ecmo	V V Ecmo
Cannulation site	Vein: - Internal jugular - Femoral Artery: - Right common carotid - Axillary - Femoral - Aorta	Single cannulation - Internal jugular - Right atrium Double cannulation - Jugular–femoral - Femoro-femoral - Sapheno-saphenous
Arterial PaO2	- 60–150 mmHg 45–80 mmHg	45–80 mmHg
Indicators of O2 sufficiency	- Mixed venous oxygen saturation (mSvO2) - PaO2 - Calculated oxygen consumption	SaO2 and PaO2 - Cerebral venous saturation - Pre-membrane saturation trend
Cardiac effects	Preload: decreased Afterload: increased Pulse pressure: lower CVP: varies Coronary O2: varies - LV blood desaturated, - Cardiac Stun syndrome	May reduce RV afterload Rest unaffected
O2 delivery capacity	high	moderate
Circulatory support	Partial to complete	No direct support, increased O2 delivery to coronary and pulmonary circuit → improving cardiac output

VA: Veno-arterial, VV: Veno-venous, ECMO: Extracorporeal membrane oxygenation

Specific Care in each system when patient on ECMO[8,9]

Pulmonary System Management

Pulmonary hygiene is achieved through frequent position changes, endotracheal suctioning for every 4 hours depending on secretions along with a daily chest radiography.

Cardiovascular System Management

- Systemic perfusion and intravascular volume should be maintained.
- Monitor hourly urine output
- Assess physical signs of perfusion (temperature, capillary refill, etc)
- Monitor central venous pressure and the mean arterial blood pressure.
- Cardiac Output monitoring and can enhanced by inotropic support.

CNS Management

- Most serious and related to the degree of hypoxia and acidosis.
- Avoid paralytic agents and perform regular neurologic examinations.

- Head ultrasonography should be performed before beginning ECMO in a neonate, if possible.
- Reevaluation with daily head ultrasonography is recommended after any major events like seizures

Renal System Management

- Oliguria and acute tubular necrosis are associated with capillary leak and intravascular volume depletion during the first 24-48 hours. Diuretics are used to reduce edema if oliguria persists for 48-72 hours.
- The diuretic phase is one of the earliest signs of recovery, usually begins within 48 hours.
- Hemofiltration or hemodialysis filters may be attached to the circuit if renal failure persist.
- Hourly urine output monitoring is mandatory

Hematologic Considerations

- Maintain patient's hemoglobin level at 12-15 g/dL to optimize oxygen delivery
- Maintain platelet counts above 100,000/mcL.
- Maintain Activated clotting time (ACT) at 180-240 seconds to avoid bleeding complications

Infection Control

- Follow strict aseptic precautions.
- Obtain cultures from the circuit at least once a week to monitor the presence of infection.

Fluids, Electrolytes, and Nutrition

- Monitor fluids and electrolyte status. The patient's weight increases in the first 1-3 days on ECMO because of fluid retention.
- Hyperalimentation (eg; Total Parenteral Nutrition) techniques to meet the high-energy needs of body. Prevent air embolism by close monitoring of circuit.

Complications[3,4]

Mechanical complication

- Cannula problems
- Oxygenator failure
- Pump failure

Patient related complications

- Hemorrhagic
- Cannula/surgical site bleeding
- Hemolysis
- GI bleeding
- DIC
- Neurologic
- Cerebral infarction
- Brain death
- seizure

Cardiovascular

- Arrhythmia
- Cardiac arrest

Gastro intestinal

- Ischemic bowel

Weaning

When the patient is placed on ECMO, the pump flow is kept high to allow the heart and lungs to rest. ECMO flow (support) will be decreased as the heart and lung function begins to improve, and it enable the heart and lungs to do more work. Heart and lungs function are assessed by investigations of blood samples, chest x-rays and echocardiogram. ECMO flow is decreased as the functional status of heart and lungs have improved and the patient is tried off pump for a couple of hours.[4,6]

If during this time, the patient remains stable, ECMO can be discontinued and the patient will require full ventilation which will also be reduced once the patient improves. Once ECMO is discontinued, the catheters will be removed from the neck and the vessels will be repaired.

Conclusion

ECMO is a Mechanical devise which can support the function of Heart and lung through adequate gas exchange and perfusion. It is also used as a therapy while the damaged organs can recover or be replaced. Thorough understanding of ECMO circuit is required to manage a patient on ECMO. The indications for ECMO support have ranged from acute respiratory failure to acute cardiac failure from wide patient subsets involving neonates to adults.ECMO is an important option for the management of severe reversible causes of respiratory failure or cardiogenic shock.[6, 7, 8]

Reference

1. Chuhan S,S Subin .Extracorporeal

membrane oxygenation,an anesthesiologist's perspective:Physiology and principles. http://www.annals.in/article.asp?issn=0971-9784;year=2011; volume=14; issue=3; spage=218 ;epage=229;aulast=Chauhan

2. http://cardiac.surgery.ucsf.edu/conditions--procedures/extracorporeal-membrane-oxygenation-(ecmo).aspx
3. https://www.nicklauschildrens.org/medical-services/pediatric-critical-care-medicine/extra-corporeal-membrane-oxygenation/physiology
4. S.H.Alfred , G.P Glenn, Richard . Davis,U.M Ross Cardiopulmonary Bypass: Principles and Practice ,3 rdedition
5. https://www.ucsfhealth.org/newsletters/heart_and_vascular_center_news/winter_2008/ecmo/
6. http://www.perfusion.com/cgi-bin/absolutenm/templates/articledisplay.asp? articleid=1807and z =3# .WMJ8O38XXIU
7. http://tele.med.ru/book/cardiac_ anesthesia/text/gr/gr031.htm
8. http://emedicine.medscape.com/article/1818617-overview#a5
9. http://www.elso-swac2016.org/wp-content/uploads/Amal-Ghadban-UAE.pdf

Review Article

Indian Journal of Surgical Nursing
Volume 9, Number 2 May–August 2020
DOI: http://dx.doi.org/10.21088/ijsn.2277.467X.9220.7

Review on Breast Feeding and Covid 19

S Suvitha[1], S.Sridevy[2]

Abstract

Early exclusive breast feeding and close contact help infants to thrive, promote sensory and cognitive development, protect the infant against infectious and chronic diseases, and lower infant mortality from diarrhea, pneumonia, or other common childhood illnesses (WHO). It is still unclear, whether the vertical transmission of SARS-CoV-2 can occur from mother to child. Breast feeding decisions for women with COVID-19 must counter balance the risk for infection to the infant with the known health benefits. Even in the communities where, COVID-19 is prevalent, mothers can breastfeed because it improves not only the survival and lifelong health and development advantages to newborns and infants but also improves the health of mothers.COVID-19 virus has not been found in breast milk, no samples of amniotic fluid, breast milk, cord blood, or neonatal pharyngeal swabs tested positive. Hence women can start to breast feed when she feels well enough to feed her baby. According to the CDC, it may be wise for the mother with COVID-19 and her infant to be in separate rooms until the mother's transmission-based precautions are discontinued. Mothers should follow infection prevention measures, such as washing hands, cleaning surfaces, sneezing or coughing into a tissue while feeding the infant.

Keywords: Breast Feeding; COVID 19; Mother and breast feeding.

How to cite this article:
S Suvitha, S.Sridevy, Review on Breast Feeding and Covid 19. Indian J Surg Nurs. 2020;9(2):90–92.

Introduction

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered corona virus. The COVID-19 pandemic continues to take its toll worldwide, with exponential increases in cases and deaths affecting nearly all countries. Most people who fall sick with COVID-19 will experience mild to moderate symptoms and recover without special treatment. The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. These droplets are too heavy to hang in the air, and quickly fall on floors or surfaces. Anyone can be infected by breathing in the virus if they are within close proximity of someone who has COVID-19, or by touching a contaminated surface and then with their eyes, nose or mouth.

Government of India is taking all necessary steps to ensure that we all are prepared well to face the challenge and threat posed by the growing pandemic of COVID-19 the Corona Virus. Only with active support of the people of India, we have been able to control the spread of the Virus in our country. The most important factor in preventing the spread of the Virus locally is to empower the Indian citizens with the right information and taking precautions based on the guidelines of professional organization. This health topic helps the readers to understand the facts and concepts on breast feeding and COVID 19.

Several organizations, including the American College of Obstetrics and Gynecology, CDC and WHO, offer recommendations regarding breastfeeding and postpartum care for women with COVID-19. With the undersupply of evidence to date, these organizations plan to update their recommendations regularly as new data available.

Author Affiliation: [1]Assistant Professor, [2]Associate Professor, Department of Nursing, Mother Theresa Post Graduate and Research Institute of Health Science, Puducherry, India

Corresponding Author: S.Sridevy, Associate Professor, Department of Nursing, Mother Theresa Post Graduate and Research Institute of Health Science, Puducherry, India

E-mail: dr.s.sridevy@gmail.com

Breastfeeding decisions for women with COVID-19 must counterpoise the risk for infection to the infant with the known health benefits of close contact and breastfeeding to the infant and mother. Many have a doubt whether COVID-19 is advanced through breastfeeding, World health organization's states that the COVID-19 virus has not been found in breast milk. And in 6 mothers with COVID-19 who were tested for SARS-CoV-2, no samples of amniotic fluid, breast milk, cord blood, or neonatal pharyngeal swabs tested positive. One mother with SARS-CoV was shown to have anti-SARS-CoV antibodies in postpartum breast milk

Transmission of COVID-19 through breast milk and breastfeeding has not been detected till date. Hence women can start to breastfeed when she feels well enough to feed her baby. Even in the communities where, COVID-19 is prevalent, mothers can breastfeed because it improves not only the survival and lifelong health and development advantages to newborns and infants but also improves the health of mothers. The cesarean mothers who is confirmed or suspected with COVID 19 can also feed her baby following delivery. Placing the newborn close to the mother also enables early initiation of breastfeeding which also reduces mortality. According to CDC, (Centers for Disease Control and Prevention). Breast milk provides protection against many illnesses and is the best source of nutrition for most infants. In limited studies, COVID-19 has not been detected in breast milk; however we do not know for sure whether mothers with COVID-19 can spread the virus via breast milk.

If the mother is sick and choose to direct breastfeed, she should wear a facemask and wash her Hands before each feeding. If she is sickto feed, she can choose to express breast milk.

World Health Organization (WHO) recommends some steps for breast feeding mother:

- Wash hands frequently with soap and water
- Use alcohol-based hand rub and especially before touching the baby;
- Wear a medical mask during any contact with the baby, including while feeding;
- Sneeze or cough into a tissue.
- Then dispose of it immediately and wash hands again;
- Routinely clean and disinfect surfaces that mothers have touched.

There is no evidence that breastfeeding changes the clinical course of COVID-19 in a mother. Women who are too ill from COVID-19 to breastfeed should consider feeding their infant by expressing milk, relactation, or using donor human milk, which may be in short supply because of social distancing and other constraints imposed by the pandemic. Health workers or breastfeeding counselors should support the mothers to relactate. The numerous benefits of breastfeeding substantially outweigh the potential risks of transmission and illness associated with the COVID-19 virus.

Healthcare Providers Can Support Breastfeeding Mothers:

- Encourage mothers to get the vaccination (if available and recommended by the hospital) for themselves, their children who are aged 6 months and older, other household members, and others caring for their infants.
- Help mothersto maintain their milk supply while ill and if separated from their newborns in the health care setting.
- Remind mothers and caregivers that breast milk remains the best source of nutrition for the infant, and provides protection through antibodies and other immunological factors.
- Teach mothers and their family members proper hand washing and cough etiquette techniques.
- Educate parents on how they can prevent COVID in themselves and young children.

Conclusion

Professional organizations and countries differ in their recommendations regarding mother-infant contact and breast feeding for mothers with COVID-19, but all agree that these decisions must counter balance risk for infection to the infant with the known health benefits of breast feeding to the infant and mother. Decisions regarding mother-infant contact and breast feeding for mothers with COVID-19 should be made by the mother and family in consultation with the healthcare team and should include respiratory and hand hygiene and other infection control precautions.

References

1. Coronavirus disease 2019 (COVID-19): Pregnancy and breastfeeding. Centers for Disease Control and Prevention (CDC) website. https://www.cdc.gov/

coronavirus/2019-ncov/need-extra-precautions/pregnancy-breastfeeding.html. Accessed May 6th, 2020.

2. Marinelli KA. International perspectives concerning donor milk banking during the SARS-CoV-2 (COVID-19) pandemic. JHumLact.2020:890334420917661. https://journals.sagepub.com/doi/10.1177/0890334420917661.
3. Q and A on COVID-19, pregnancy, childbirth and breastfeeding. World Health Organization (WHO) website. https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-pregnancy-childbirth-and-breastfeeding. Published March 18, 2020. Accessed May 6th, 2020.
4. https://www.medscape.org/viewarticle/929045?nlid=135273_2881andsrc=wnl_cmemp_200501_mscpedu_nursanduac=289742EJ and impID=2367105 and faf=1.

Guidelines for Authors

Manuscripts must be prepared in accordance with "Uniform requirements for Manuscripts submitted to Biomedical Journal" developed by international committee of medical Journal Editors

Types of Manuscripts and Limits

Original articles: Up to 3000 words excluding references and abstract and up to 10 references.

Review articles: Up to 2500 words excluding references and abstract and up to 10 references.

Case reports: Up to 1000 words excluding references and abstract and up to 10 references.

Online Submission of the Manuscripts

Articles can also be submitted online from http://rfppl.co.in/customer_index.php.

I) First Page File: Prepare the title page, covering letter, acknowledgement, etc. using a word processor program. All information which can reveal your identity should be here. use text/rtf/doc/PDF files. Do not zip the files.

2) Article file: The main text of the article, beginning from Abstract till References (including tables) should be in this file. Do not include any information (such as acknowledgement, your name in page headers, etc.) in this file. Use text/rtf/doc/PDF files. Do not zip the files. Limit the file size to 400 Kb. Do not incorporate images in the file. If file size is large, graphs can be submitted as images separately without incorporating them in the article file to reduce the size of the file.

3) Images: Submit good quality color images. Each image should be less than 100 Kb in size. Size of the image can be reduced by decreasing the actual height and width of the images (keep up to 400 pixels or 3 inches). All image formats (jpeg, tiff, gif, bmp, png, eps etc.) are acceptable; jpeg is most suitable.

Legends: Legends for the figures/images should be included at the end of the article file.

If the manuscript is submitted online, the contributors' form and copyright transfer form has to be submitted in original with the signatures of all the contributors within two weeks from submission. Hard copies of the images (3 sets), for articles submitted online, should be sent to the journal office at the time of submission of a revised manuscript. Editorial office: Red Flower Publication Pvt. Ltd., 48/41-42, DSIDC, Pocket-II, Mayur Vihar Phase-I, Delhi – 110 091, India, Phone: 91-11-22754205, 45796900, 22756995. E-mail: author@rfppl.co.in. Submission page: http://rfppl.co.in/article_submission_system.php?mid=5.

Preparation of the Manuscript

The text of observational and experimental articles should be divided into sections with the headings: Introduction, Methods, Results, Discussion, References, Tables, Figures, Figure legends, and Acknowledgment. Do not make subheadings in these sections.

Title Page

The title page should carry

1) Type of manuscript (e.g. Original article, Review article, Case Report)

2) The title of the article should be concise and informative;

3) Running title or short title not more than 50 characters;

4) The name by which each contributor is known (Last name, First name and initials of middle name), with his or her highest academic degree(s) and institutional affiliation;

5) The name of the department(s) and institution(s) to which the work should be attributed;

6) The name, address, phone numbers, facsimile numbers and e-mail address of the contributor responsible for correspondence about the manuscript; should be mentoined.

7) The total number of pages, total number of photographs and word counts separately for abstract and for the text (excluding the references and abstract);

8) Source(s) of support in the form of grants, equipment, drugs, or all of these;

9) Acknowledgement, if any; and

l0) If the manuscript was presented as part at a meeting, the organization, place, and exact date on which it was read.

Abstract Page

The second page should carry the full title of the manuscript and an abstract (of no more than 150 words for case reports, brief reports and 250 words for original articles). The abstract should be structured and state the Context (Background), Aims, Settings and Design, Methods and Materials, Statistical analysis used, Results and Conclusions. Below the abstract should provide 3 to 10 keywords.

Introduction

State the background of the study and purpose of the study and summarize the rationale for the study or observation.

Methods

The methods section should include only information that was available at the time the plan or protocol for the study was written such as study approach, design, type of sample, sample size, sampling technique, setting of the study, description of data collection tools and methods; all information obtained during the conduct of the study belongs in the Results section.

Reports of randomized clinical trials should be based on the CONSORT Statement (http:// www. consort-statement. org). When reporting experiments on human subjects, indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) and with the Helsinki Declaration of 1975, as revised in 2000 (available at http://www.wma. net/e/policy/l 7-c_e.html).

Results

Present your results in logical sequence in the text, tables, and illustrations, giving the main or most important findings first. Do not repeat in the text all the data in the tables or illustrations; emphasize or summarize only important observations. Extra or supplementary materials and technical details can be placed in an appendix where it will be accessible but will not interrupt the flow of the text; alternatively, it can be published only in the electronic version of the journal.

Discussion

Include summary of key findings (primary outcome measures, secondary outcome measures, results as they relate to a prior hypothesis); Strengths and limitations of the study (study question, study design, data collection, analysis and interpretation); Interpretation and implications in the context of the totality of evidence (is there a systematic review to refer to, if not, could one be reasonably done here and now?, What this study adds to the available evidence, effects on patient care and health policy, possible mechanisms)? Controversies raised by this study; and Future research directions (for this particular research collaboration, underlying mechanisms, clinical research). Do not repeat in detail data or other material given in the Introduction or the Results section.

References

List references in alphabetical order. Each listed reference should be cited in text (not in alphabetic order), and each text citation should be listed in the References section. Identify references in text, tables, and legends by Arabic numerals in square bracket (e.g. [10]). Please refer to ICMJE Guidelines (http://www.nlm.nih.gov/bsd/uniform_ requirements.html) for more examples.

Standard journal article

[1] Flink H, Tegelberg Å, Thörn M, Lagerlöf F. Effect of oral iron supplementation on unstimulated salivary flow rate: A randomized, double-blind, placebo-controlled trial. J Oral Pathol Med 2006; 35: 540–7.

[2] Twetman S, Axelsson S, Dahlgren H, Holm AK, Källestål C, Lagerlöf F, et al. Caries-preventive effect of fluoride toothpaste: A systematic review. Acta Odontol Scand 2003; 61: 347–55.

Article in supplement or special issue

[3] Fleischer W, Reimer K. Povidone-iodine antisepsis. State of the art. Dermatology 1997; 195 Suppl 2: 3–9.

Corporate (collective) author

[4] American Academy of Periodontology. Sonic and ultrasonic scalers in periodontics. J Periodontol 2000; 71: 1792–801.

Unpublished article

[5] Garoushi S, Lassila LV, Tezvergil A, Vallittu PK. Static and fatigue compression test for particulate filler composite resin with fiber-reinforced composite substructure. Dent Mater 2006.

Personal author(s)

[6] Hosmer D, Lemeshow S. Applied logistic regression, 2nd edn. New York: Wiley-Interscience; 2000.

Chapter in book

[7] Nauntofte B, Tenovuo J, Lagerlöf F. Secretion and composition of saliva. In: Fejerskov O,

Kidd EAM, editors. Dental caries: The disease and its clinical management. Oxford: Blackwell Munksgaard; 2003. pp 7–27.

No author given

[8] World Health Organization. Oral health surveys - basic methods, 4th edn. Geneva: World Health Organization; 1997.

Reference from electronic media

[9] National Statistics Online—Trends in suicide by method in England and Wales, 1979–2001. www.statistics.gov.uk/downloads/theme_health/HSQ20.pdf (accessed Jan 24, 2005): 7–18. Only verified references against the original documents should be cited. Authors are responsible for the accuracy and completeness of their references and for correct text citation. The number of reference should be kept limited to 20 in case of major communications and 10 for short communications.

More information about other reference types is available at www.nlm.nih.gov/bsd/uniform_requirements.html, but observes some minor deviations (no full stop after journal title, no issue or date after volume, etc.).

Tables

Tables should be self-explanatory and should not duplicate textual material.

Tables with more than 10 columns and 25 rows are not acceptable.

Table numbers should be in Arabic numerals, consecutively in the order of their first citation in the text and supply a brief title for each.

Explain in footnotes all non-standard abbreviations that are used in each table.

For footnotes use the following symbols, in this sequence: *, ¶, †, ‡‡,

Illustrations (Figures)

Graphics files are welcome if supplied as Tiff, EPS, or PowerPoint files of minimum 1200x1600 pixel size. The minimum line weight for line art is 0.5 point for optimal printing.

When possible, please place symbol legends below the figure instead of the side.

Original color figures can be printed in color at the editor's and publisher's discretion provided the author agrees to pay.

Type or print out legends (maximum 40 words, excluding the credit line) for illustrations using double spacing, with Arabic numerals corresponding to the illustrations.

Sending a revised manuscript

While submitting a revised manuscript, contributors are requested to include, along with single copy of the final revised manuscript, a photocopy of the revised manuscript with the changes underlined in red and copy of the comments with the point-to-point clarification to each comment. The manuscript number should be written on each of these documents. If the manuscript is submitted online, the contributors' form and copyright transfer form has to be submitted in original with the signatures of all the contributors within two weeks of submission. Hard copies of images should be sent to the office of the journal. There is no need to send printed manuscript for articles submitted online.

Reprints

Journal provides no free printed, reprints, however a author copy is sent to the main author and additional copies are available on payment (ask to the journal office).

Copyrights

Declaration

A declaration should be submitted stating that the manuscript represents valid work and that neither this manuscript nor one with substantially similar content under the present authorship has been published or is being considered for publication elsewhere and the authorship of this article will not be contested by any one whose name(s) is/are not listed here, and that the order of authorship as placed in the manuscript is final and accepted by the co-authors. Declarations should be signed by all the authors in the order in which they are mentioned in the original manuscript. Matters appearing in the Journal are covered by copyright but no objection will be made to their reproduction provided permission is obtained from the Editor prior to publication and due acknowledgment of the source is made.

Approval of Ethics Committee

We need the Ethics committee approval letter from an Institutional ethical committee (IEC) or an institutional review board (IRB) to publish your Research article or author should submit a statement that the study does not require ethics approval along with evidence. The evidence could either be consent from patients is available and there are no ethics issues in the paper or a letter from an IRB stating that the study in question does not require ethics approval.

Abbreviations

Standard abbreviations should be used and be spelt out when first used in the text. Abbreviations should not be used in the title or abstract.

Checklist

- Manuscript Title
- Covering letter: Signed by all contributors
- Previous publication/ presentations mentioned, Source of funding mentioned
- Conflicts of interest disclosed

Authors

- Middle name initials provided.
- Author for correspondence, with e-mail address provided.
- Number of contributors restricted as per the instructions.
- Identity not revealed in paper except title page (e.g. name of the institute in Methods, citing previous study as 'our study')

Presentation and Format

- Double spacing
- Margins 2.5 cm from all four sides
- Title page contains all the desired information. Running title provided (not more than 50 characters)
- Abstract page contains the full title of the manuscript
- Abstract provided: Structured abstract provided for an original article.
- Keywords provided (three or more)
- Introduction of 75-100 words
- Headings in title case (not ALL CAPITALS). References cited in square brackets
- References according to the journal's instructions

Language and grammar

- Uniformly American English
- Abbreviations spelt out in full for the first time. Numerals from 1 to l0 spelt out
- Numerals at the beginning of the sentence spelt out

Tables and figures

- No repetition of data in tables and graphs and in text.
- Actual numbers from which graphs drawn, provided.
- Figures necessary and of good quality (color)
- Table and figure numbers in Arabic letters (not Roman).
- Labels pasted on back of the photographs (no names written)
- Figure legends provided (not more than 40 words)
- Patients' privacy maintained, (if not permission taken)
- Credit note for borrowed figures/tables provided
- Manuscript provided on a CDROM (with double spacing)

Submitting the Manuscript

- Is the journal editor's contact information current?
- Is the cover letter included with the manuscript? Does the letter:

1. Include the author's postal address, e-mail address, telephone number, and fax number for future correspondence?
2. State that the manuscript is original, not previously published, and not under concurrent consideration elsewhere?
3. Inform the journal editor of the existence of any similar published manuscripts written by the author?
4. Mention any supplemental material you are submitting for the online version of your article. Contributors' Form (to be modified as applicable and one signed copy attached with the manuscript)