



# A study to assess the knowledge regarding Allen Buerger's exercise Among staff nurses in selected hospital, Kanpur Uttar Pradesh

Mrs Jasmi Manu<sup>2</sup> Mrs Pooja<sup>1</sup>

Professor Department Of Obstetric and gynecology

2<sup>nd</sup> year M.Sc Nursing student Faculty Of Nursing<sup>2</sup>, Rama University, Kanpur Uttar Pradesh.

## Abstract

The Allen Buerger's exercise is an effective intervention against the insufficiency of lower extremity blood circulation. The lower extremity perfusion is the essential function of human body. There are certain causes due to which the blood circulation may be altered and if the condition is not treated on time it may cause further complications like peripheral neuropathy, diabetic foot, cellulitis, deep vein thrombosis or peripheral oedema. The prevalence of metabolic disorders like diabetes mellitus has a high incidence rate. The present study aimed to assess the knowledge regarding Allen Buerger's Exercise among staff nurses in selected hospitals, Kanpur, Uttar Pradesh. The objectives of the study were to assess the knowledge regarding Allen Buerger's exercise among staff nurses in a selected hospital, Kanpur, Uttar Pradesh. To find out the association between the level of knowledge regarding Allen Buerger's exercise among staff nurses with their selected demographic variables.

The research approach used was a quantitative approach and a non-experimental descriptive survey research design was used for the study. The setting of the study was Rama Hospital, Kanpur, Uttar Pradesh and the sample size was 100 staff nurses selected by convenient sampling technique. The data was collected and analysed on the basis of objectives. The findings of the study showed that the mean value was 24.58, standard deviation value was 4.08 and the majority (56%) of mothers have average knowledge, 29% have good knowledge and 15% have poor knowledge. The association between the knowledge on Allen Buerger's Exercise assessed with their selected demographic variables. It showed that there is a significant level of knowledge except for age in years, area of living, education, occupation, monthly income, previous knowledge, and source of information. It concluded that the majority of parents have an average level of knowledge on common ear diseases among mothers of under-five children admitted in selected hospitals.

**Keywords:** Allen Buerger's exercise, peripheral vascular disease, cellulitis

## INTRODUCTION

The Allen Buerger's exercise is effective against lower limb insufficiency. This exercise was first published by Leo Buerger in the year 1924. After that, it was modified by Arthur Allen for postural treatment with low cost and less treatment risk. It is the treatment for inadequate arterial blood supply. If a person performs this exercise, then due to gravity it affects the smooth muscle valves. A study was conducted in the year 2017 from July to October in medical and surgical wards of Shri Ramachandra Hospital at Chennai. In which they were assessing the effectiveness of Allen Buerger's exercise to enhance lower extremity perfusion by wound healing process and alleviate peripheral neuropathy symptoms among diabetes mellitus patients by the use of a quasi-experimental study and this exercise was repeated for 4 consecutive days while performing the exercise 5

times per day. The results of the intervention shows that the patients had mildly impaired perfusion during .

“A study to assess the knowledge regarding Allen Buerger’s Exercise among staff nurses in a selected hospital Kanpur, Uttar Pradesh”

## **AIMS AND OBJECTIVE**

### **PROBLEM STATEMENT**

A study to assess the knowledge regarding Allen Buerger’s exercises among staff nurses in a selected hospital Kanpur, Uttar Pradesh”

### **TITLE OF THE STUDY**

“Assessment of the knowledge regarding Allen Buerger’s exercise among staff nurse in a selected hospital Kanpur, Uttar Pradesh”

### **OBJECTIVES**

1. To assess the knowledge regarding Allen Buerger’s exercise among staff nurse in a selected hospital Kanpur, Uttar Pradesh.
2. To find out the association between level of knowledge regarding Allen Buerger’s exercise among staff nurses with their selected demographic variables.

### **HYPOTHESES**

1.  $H_{01}$  :There is no significant association between level of knowledge regarding Allen Buerger’s exercise among staff nurses with their selected demographic variables.
2.  $H_1$  : There is a significant association between level of knowledge regarding Allen Buerger’s exercise among staff nurses with their selected demographic variables.

### **METHODOLOGY**

**Research approach-** A quantitative research approach was used in this study to assess the knowledge regarding Allen Buerger’s exercise among staff nurse.

**Research design-**In this study non experimental descriptive survey research design was used by researcher.

**Setting of the study-** in this study the setting was conducted in Rama Hospital And research centre, Mandhana Kanpur, Uttar Pradesh.

### **VARIABLES**

**Research variables:** Knowledge on Allen Buerger’s exercises among staff nurses

**Demographic variables :** In this study demographic variable were age in years, area of residence, educational qualification, monthly income, marital status, source of health information.

**POPULATION-** The population of the study was staff nurses.

- Target population-it comprised staff nurses working in a selected hospital, Kanpur.

- Accessible population- it comprised staff nurses working in a selected hospital, Kanpur. Aho fulfilled inclusion criteria.

**SAMPLE-** During this study, the sample was staff nurses working in a selected hospital, Kanpur

**SAMPLE SIZE-** The sample size of present study of 100 staff nurses who fulfilled the inclusion criteria.

**SAMPLING TECHNIQUE-** During this study, the samples were selected through convenient sampling technique.

## **SAMPLING CRITERIA**

### **INCLUSION CRITERIA-**

- Staff nurse who are available at the time of data collection.
- Staff nurse who are willing to participate at the time of data collection.

### **EXCLUSION CRITERIA**

- Staff who are not available at the time of data collection.
- Staff nurse who are not interested in data collection.

## **METHOD OF DATA COLLECTION**

Data collection was done within 2 days in Rama hospital, Kanpur, Uttar Pradesh. 100 sample was collected who fulfilled the inclusion criteria of the study before data collection and consent was taken from participants. Data was analysed according the objective of the study by descriptive and inferential statistics.

## **DEVELOPMENT OF TOOL**

**Construction-** the tool was constructed after reviewing literature and in consultation with concept.

**Description and scoring-** the tool consist of two sections

**Section A-** It deals with demographic data such as age, education status, clinical experience, previous knowledge of Allen Buerger's exercise.

**Section B-**It consist of multiple-choice question to assess the knowledge regarding Allen Buerger's exercise among staff nurses in a selected hospitals.

It consist 30 multiple choice questions. Each question contains 1 score for given right answer.

**RESULT FINDINGS-  
SECTION -A**

**Table –1 Frequency and Percentage wise distribution of the staff nurses according to the demographic variables (N=100)**

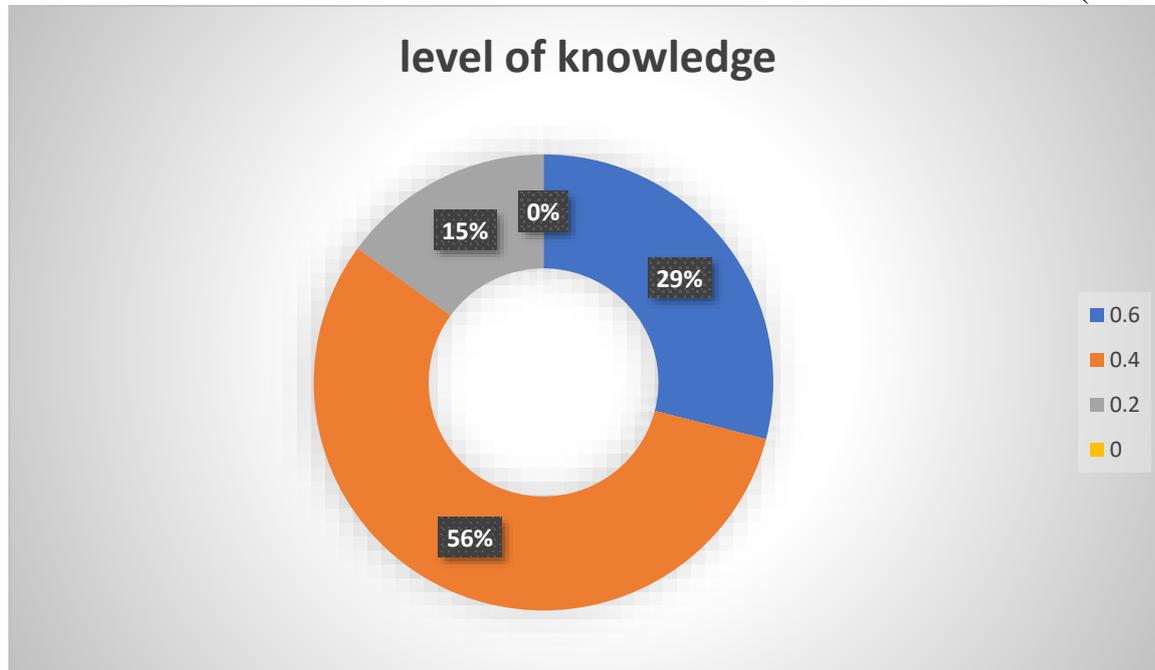
S.NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1.	Age		
	20-29yrs	39	39%
	30-39yrs	32	32%
	49-49yrs	16	16%
	50 and above	13	13%
2.	GENDER		
	Female	75	75%
	male	25	25%
3.	EDUCATIONAL STATUS		
	GNM	65	65%
	BSc. Nursing	20	20%
	PBSc. Nursing	10	10%
	MSc Nursing	5	5%
4.	CLINICAL EXPERIENCE		
	>1 year	25	25%
	2-4 year	10	10%
	5-7 year	51	51%
	<8 year	14	14%
5.	PREVIOUS KNOWLEDGE ON ALLEN BUERGER'S EXERCISE		
	Health personnel	16	16%
	Hospital	30	30%
	Books and journal	45	45%
		9	9%

## Mass media

The above table shows that majority of the staff nurses 39 [39%] from the age between 20-29 years and majority of staff nurses 75[ 75%] were females, majority of the staff were having GNM education 65[65%], majority of the staff nurses 51[51%] were having 5-7years experience. The majority of staff nurses 45[45%] were having previous knowledge through books and journal.

### Section B: The knowledge on Allen Buerger's exercise among staff nurses.

(N=100)



### LEVEL OF KNOWLEDGE

The above pie diagram shows that 56% of staff nurses having good knowledge and 29% of staff nurses having average knowledge and 15% staff nurses of having poor knowledge, Hence, it concluded that majority of the staff nurses have average knowledge 56% regarding Allen Buerger's exercise.

**TABLE -2 Mean and standard deviation of knowledge scores on Allen Buerger's exercise.**

SR. NO	Mean	Standard deviation
Knowledge score	24.58	4.08

The above table shows mean value is 24.58 and standard deviation value is 4.08 of level of knowledge of staff nurses regarding Allen Buerger's Exercise.

**TABLE-3 Table showing association between pre-test level of knowledge regarding Allen Buerger's exercise among staff nurses with their selected demographic variables.**

N=100

Sr.No.	Knowledge	Chi-Square	DF	T-value	Inference
1.	Age	8.178	2	2.92	Significant
2.	Gender	4.126	1	6.314	Non significant
3.	Educational status	7.812	3	2.353	Significant
4.	Clinical experience	9.621	3	2.353	Significant
5.	Previous knowledge on Allen Buerger's exercise	10.26	2	2.920	Significant

**DISCUSSION-**The study has aimed to assess the knowledge level of staff nurses regarding Allen Buerger's exercise in a selected Rama Hospital, Kanpur, Uttar Pradesh. The findings were discussed in relation to the objectives of the study. The purpose of the study was to assess the knowledge regarding Allen Buerger's exercise. The overall knowledge scores regarding the knowledge on Allen Buerger's exercise showed that 29% having good knowledge and 56% having average knowledge and 15% staff nurses having poor knowledge scores. The mean value was 24.68 and standard deviation 4.08.

## RECOMMENDATION

The recommendation is made on the basis of present study are

- The study can be done by using other methods of data collection.
- The similar study can be done on large size
- The study can be repeated in hospital setting

**CONCLUSION-**The study was aimed to assess the knowledge level of staff nurses regarding Allen Buerger's exercise in a selected Rama Hospital, Kanpur, Uttar Pradesh. The sample size was 100 staff nurses selected by convenient sampling technique. The knowledge scores regarding the Allen Buerger's exercise showed that 29% of staff nurses having good knowledge and 56% having average knowledge and 15% staff having poor knowledge scores. The mean value was 24.58 and standard deviation 4.08 and the association between the level of knowledge on Allen Buerger's exercise among staff nurses with their selected demographic variables. Age, educational status, clinical experience, previous knowledge on Allen Buerger's exercise.

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