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**“AN EXPLORATORY STUDY TO IDENTIFY THE RISK FACTORS OF VARICOSE VEINS AMONG STAFF NURSES WORKING IN TERTIARY CARE HOSPITAL, BELAGAVI WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET ON PREVENTION OF VARICOSE VEIN”.**

**Lhamo J<sup>1</sup>**, Senior Tutor, Department of Medical surgical Nursing, KAHER Institute of Nursing Sciences, Belagavi-590010.

**Borges J<sup>2</sup>**, Senior Tutor, Department of Medical Surgical Nursing, KAHER Institute of Nursing Sciences, Belagavi-590010.

**Dr. Milka D. Madhale,<sup>3</sup>** Associate Professor, Department of Nursing, Arsi University, Assella, Ethiopia-193.

Corresponding author Email ID: <sup>1</sup>[jampa777@gmail.com](mailto:jampa777@gmail.com)

Email ID:<sup>2</sup>[jontyborges@gmail.com](mailto:jontyborges@gmail.com)

Email ID:<sup>3</sup>[milkam1770@gmail.com](mailto:milkam1770@gmail.com)

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**Abstract**

**Introduction:** Varicose vein is one of the most annoying disease occurring all over the world. People who are standing and sitting for a longer period of time such as teachers, bank staffs, hair dressers and nurses are more prone for the risk of varicose veins. This study was conducted on finding out risk factor of varicose vein among nurses and to provide information booklet on prevention of varicose vein. **Objectives:** To identify the risk factors of varicose veins among staff nurses assessed by risk assessment scale. To find out the association between risk factors of varicose vein and socio-demographic variables and to develop an information booklet on prevention of varicose vein. **Methodology:** A descriptive study was conducted among 80 staff nurses to identify the risk factors of varicose veins in selected tertiary care hospitals, Belagavi using self administered checklist. The study was conducted using Purposive sampling technique.

**Result:** In the present study the frequency and percentage of demographic data of respondents regarding risk factors of varicose veins, where majority of respondents 58 (72.50%) belonged to the age group of  $\leq 30$  years. Majority of participants 53 (66.25%) were female. In relation to the educational status of the respondents 59 (73.75%) were diploma. Majority of the subjects, years of experience was between 5-6 years and  $\geq 7$  years were 31 (38.75%) respectively. Majority of the participants, BMI include 62 (77.50%) were non obese. About 60 (75%) of the respondents were mixed diet. Majority of the participants 71 (88.75%) were not smoking. Majority of the subjects 73 (91.25%) were not consuming alcohol. Statistical analysis using chi-square to find association between the risk factors and selected socio demographic variables revealed that there was significant association between risk factors and years of experience of participants at 0.05 level of significance as P value is  $< 0.05$ . This indicates that risk factors were dependent on years of experience of the respondents. But no significant association was found between the risk factors and selected demographic variables like age, gender educational status, BMI, diet, smoking habits and alcoholism at 0.05 level of significance as p value is  $> 0.05$ . The variables and risk factors were independent on each other. **Conclusion:** The study concluded that the risk factors of varicose veins and years of experience showed significant association and there was no significant association between risk factors and other socio demographic variables such as age, gender, educational status, BMI, diet and habits, where prolonged standing leads to varicose veins so nurses are more prone to adapt this disease and preventive measures plays a vital role in avoiding varicose veins.

**Keywords:** Staff nurses; risk factors; varicose veins; Information booklet

**Introduction:** Diseases are more common in the world; the person will find out the cause of disease and try to take quick action to avoid the disease. Immediate awareness is the best way to save the life successfully. In day to day life, human being and their survival depends upon continuous circulation of blood to each and every organ through arteries and veins. Different dietary pattern in the different people, regions and less physical exercise are the main factors to cause varicose vein.<sup>1</sup>

It is estimated that 3–6% of people who have varicose veins in their lifetime will develop venous ulcers and can have a significant effect on their quality of life.<sup>2</sup>

As per the census of WHO (2007), 2% of the western population have varicose vein, women have 3-4 times more than men. Statistics as per the country for prevalence of varicose veins is 45 per 1000. It was found approximately one in 22 for U S A. In India the varicose vein showed an effect on one out of 2 people aged 50 years. In Bangalore about 3-5% of the total population suffers from venous problems, of which 10% of population has varicose veins.<sup>3</sup>

Some of the major risk factors are age, gender, pregnancy, family history and prolonged standing. Among these risk factors nurses have the two important risk factors gender & prolonged standing during duty hours. They are at higher risk of developing varicose vein because of their nature of job which requires prolonged standing at patient bedside and this increase their risk of getting varicose vein later in their life while in India it is around 1: 5. The only way to avoid the varicose vein among nurses is to follow the preventive measures.<sup>4</sup>

**Material and methods:** The study was conducted at KLE's Dr. Prabhakar Kore Hospital and MRC, Belgaum. A descriptive design was used. All the registered nurses were included in the study. The patency to identify the risk factors of varicose veins was assessed by using self administered checklist. A sample size of 80 staff nurses were considered in the study. Chi-square test and unpaired 't' test was used to find out the association between risk factors and socio demographic variables.

**Results:** The researcher collected the data for analysis and interpretation, using a self-administered checklist. In order to examine the present association, the data were analyzed and interpreted, using descriptive and inferential statistics.

**ORGANIZATION OF DATA: Section 1:** Findings related to socio-demographic variables of the respondents. **Section 2:** Association between demographic variables and risk factors of varicose veins

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## SECTION I: FINDINGS RELATED TO DEMOGRAPHIC VARIABLES OF RESPONDENTS

**Table no 1: Frequency and percentage distribution of participants according to socio-demographic variables.**  
(n=80)

S.No	Demographic variables	Frequency (f)	Percentage (%)
1.	<b>Age groups</b>		
	≤30yrs	58	72.50
	>30 yrs	22	27.50
2.	<b>Gender</b>		

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	Male	27	33.75
	Female	53	66.25
<b>3.</b>	<b>Education</b>		
	Diploma	59	73.75
	B.sc	21	26.25
<b>4.</b>	<b>Years of experience</b>		
	≤4 yrs	18	22.50
	5-6yrs	31	38.75
	≥7 yrs	31	38.75
<b>5.</b>	<b>BMI</b>		
	Non obese	62	77.50
	Obese	18	22.50
<b>6.</b>	<b>Diet</b>		
	Vegetarian	20	25.00
	Mixed	60	75.00
<b>7 a</b>	<b>Smoking habit</b>		
	No	71	88.75
	Yes	9	11.25
<b>b.</b>	<b>Alcohol habit</b>		
	No	73	91.25
	Yes	7	8.75

The data presented in table no. 1 showed that, Majority of respondents 58 (72.50%) belonged to the age group of ≤30 years and minimum 22 (27.50%) were above >30 years of age. Majority of participants 53 (66.25%) were female and 27 (33.75%) were male. In relation to the educational status of the respondents 59 (73.75%) were diploma and 21 (26.25%) were B.sc nursing. Majority of the subjects, years of experience was between 5-6years and ≥7years were 31 (38.75%) respectively and minimum 18 (22.50%) were belonged to ≤4years. Majority of the participants, BMI include 62 (77.50%) About 60 (75%) of the respondents were mixed diet Majority of the participants 71 (88.75%) were not smoking Majority of the subjects 73 (91.25%) were not consuming alcohol

## SECTION II: ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND RISK FACTORS OF VARICOSE VEINS

**Table no 2: Comparison of different characteristics with mean number of risk factors presents by unpaired t tests and one way ANOVA test n=80**

Factors	Mean	SD	Statistic (t test or F test)	p-value
<b>Age groups</b>				
≤30yrs	13.4	3.3		
>30 yrs	13.1	3.8	0.3322	0.7406
<b>Gender</b>				
Male	12.4	3.6		
Female	13.7	3.3	-1.6000	0.1136
<b>Education</b>				
Diploma	13.6	3.4		
B. Sc.	12.4	3.6	1.3561	0.1790

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<b>Years of experience</b>				
≤4 yrs	11.3	3.8		
5-6yrs	14.6	1.9		
≥7 yrs	13.2	3.9	6.0582 (F test)	0.0036*
<b>BMI</b>				
Non obese	13.3	3.5		
Obese	13.4	3.4	-0.2007	0.8415
<b>Diet</b>				
Vegetarian	13.2	3.2		
Mixed	13.3	3.5	-0.1489	0.8820
<b>Smoking habit</b>				
No	13.3	3.5		
Yes	13.2	3.1	0.0714	0.9433
<b>Alcohol habit</b>				
No	13.4	3.4		
Yes	12.3	3.9	0.8132	0.4186
Total	13.3	3.4		

\*p&lt;0.05

Table no 2 represents that there was significant association between risk factors and years of experience ( $\chi^2=6.0582$ ) of participants at 0.05 level of significance as P value is <0.05. But no significant association was found between the risk factors and selected demographic variables like age ( $\chi^2=0.3322$ ), gender ( $\chi^2=-1.6000$ ), educational status ( $\chi^2=1.3561$ ), BMI ( $\chi^2=-0.2007$ ), diet ( $\chi^2=-0.1489$ ), smoking habits ( $\chi^2=0.0714$ ) and alcoholism ( $\chi^2=0.8132$ ) at 0.05 level of significance as P value is >0.05. Thus, in relation to above finding the research hypothesis  $H_0$  was rejected. This indicates that risk factors were dependent on years of experience of the respondents.

**Discussion:** In the present study majority of respondents, 58(72.5%) belonged to the age group of ≤30years. In relation to gender, 53(66.25%) were female. Majority 59(73.75%) of the respondents had pursued diploma qualification. Most of the subjects in relation with their years of experience, 31 (38.75%) were between 5-6years and ≥7years were respectively. 62 (77.50%) of the respondents were non obese. About 60(70%) of the respondents were taking mixed diet. Majority of participants, 71(88.75%) were non smokers. Majority of the respondents, 73(91.25%) were not consuming alcohol. The study was analyzed with unpaired 't' test to identify the association between risk factors of varicose veins and socio demographic variables. The current study concluded that there was significant association between risk factors and years of experience, obtained 't' value 0.036 which was significant at p < 0.05 level of significance.

**Conclusion:** The present study was concluded that there was significant association between risk factors and years of experience. But there was no association between risk factors and other socio demographic variables such as age, gender, education, BMI, diet and habits. On the basis of findings information booklet was framed

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