

**KNOWLEDGE REGARDING VARICOSE VEIN AMONG NURSES WORKING IN
TEACHING HOSPITAL, CHITWAN**

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Sabita Mishra

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Varicose veins are abnormally dilated, tortuous, superficial veins caused by incompetent venous valves. It is considered as the most common vascular disorder in humans creating serious sign and symptom leading to surgical treatment and widespread morbidity. This study aimed to out the knowledge regarding varicose vein among nurses. Descriptive cross-sectional study was carried out among nurses working in different unit of Chitwan Medical College Teaching Hospital, Chitwan. A total 132 nurses were selected by using probability, simple random sampling technique. Data were collected by using structured self-administered questionnaire. Data were analyzed in SPSS 20 version using descriptive statistics as well as inferential statistics. The findings of the study revealed that (80.3%) of the nurses were from age group of 17 to 23 years. Most (81.1%) of the nurses had completed PCL Nursing and none of the respondents had received in service education on varicose vein. Regarding the level of knowledge (29.5%) had adequate level of knowledge, (26.5%) had moderate level of knowledge and (43.9%) had inadequate level of knowledge regarding varicose vein. There was statistically significant association between level of knowledge and professional qualification ($p=0.041$). It is concluded that nearly half of the nurses still have inadequate level of knowledge regarding varicose vein. It shows nursing administrator need to organize continuous in-service education for nurses to enhance their knowledge regarding varicose vein.

KEYWORDS: Knowledge, Nurses, Varicose Vein.**INTRODUCTION**

Varicose vein is considered as the most common vascular disorder in humans creating serious sign and symptoms and lead to surgical treatment and widespread morbidity. This is also one of the major causes of morbidity in the United states and Western countries. This disorder has suffered nearly a quarter of the adult population in these countries. It occurs in different part of the body but it mostly affects the lower limb. Varicose veins affect a large percentage of adult population. An estimated 24 millions Americans have varicose veins. The prevalence increases with age and peaks between the fifth and sixth decades of life (Joyce & Jane, 2005). In Asian ethnic groups the incidence of varicose vein is reported as 18.7% (Moneim, 2016).

Varicose veins are common in females but onset of disease is earlier in males. The incidence is about 20-25% of adult female population and 10-15% of men in western countries {World Health Organization (WHO), 2013}.

Lower limb varicose vein are common and known to have a higher prevalence among people who work in occupations required prolonged standing. Varicose vein related occupational factors have seldom been examined

in the republic of Korea in which a study revealed that prevalence of varicose vein in nurses was estimated to be 16.18% (Yun et al., 2018).

Nursing is a balanced art of compassion and science of concern. The profession of nursing as a whole is overloaded. Individual nurses are overloaded by the number of patients they oversee and by the number of tasks they perform. They work under cognitive overload, engaging in multitasking and encountering frequent interruptions (Lucia et al., 2009).

Due to the specificity of their work, nurse have to stand for a long time with both legs bearing weight. The fast paced and unpredictable nature of health care place nurses at higher risk for different types of injuries and illness and from all one of the most increasing in trend is varicose vein whose incidence is 60% higher than the common people (Erding, Shuyan, Weiwei & Ying, 2017).

According to the American Venous Forum, an estimated 23% of the US adult population suffers from varicose veins and nursing profession is perceived as a high-risk occupation, in which positions such as long-time standing and sitting are inevitable during the work. As

nurses are the major constituents of health-care systems, such frustrating and overwhelming positions can lead to disruption and have higher risk of developing varicose vein (Laurikka, Sisto, Tarkka, Auvinen, & Hakama, 2002).

Despite the harmless nature of varicose veins itself, there are some hidden dangers that nurse should be alert too. The pools of blood in the vein can begin to clot and cause pain. A more severe complication is ulcers, that can be developed. Once developed there is no spontaneous recovery and symptoms are exacerbated in proportion to disease duration. Therefore, VVs should be treated actively in their early phases. More importantly their risk factors should be counteracted before the symptoms appear (Theodoros I Kostas et al., 2010).

Thus, it is very important to bring changes in nursing practice, nursing education, nursing administration and nursing research through in-service education (Tauro, Souza, Kuriakose, B.T, & G.R, 2015).

MATERIALS AND METHODS

A descriptive cross sectional study design was used to assess the nurses knowledge regarding varicose vein. The study was carried out at Chitwan Medical College Teaching Hospital. The study population were all the nurses working in different ward (ICU, ER, Maternity, Psychiatric, Orthopedic, ENT, Medicine, Surgery, Gastroenterology, Paying, Cabin and OT) of CMCTH. Probability simple random sampling was used to collect the data. The sample size will be 132. (i.e. N=132).

The instrument for data collection was structured self-administered questionnaire. Research instrument was prepared by self by reviewing the related literature, consulting with the research advisor, subject expert and other research expertise. The research instrument was categorized into two parts:

Part-I Questions related to socio-demographic data

Part-II Questions related to the knowledge regarding varicose vein

The content validity of the research instrument was established by developing instrument on the basis of literature review, advice from advisor and subject expert. Research instrument was pretested among 21 nurses working in Surgery and ENT ward of Chitwan Medical College.

Approval was taken from the research committee of School of Nursing, Chitwan Medical College (P) Ltd. Bharatpur-5, Chitwan. The written informed consent was obtained from each respondent. Respondent's anonymity was maintained by giving code number in questionnaire. Confidentiality of the information was maintained by not disclosing the information of the respondents and by using only for the study purpose. Respondents dignity was maintained by giving right to reject or discontinue from the research study at any time. Pretested self administered questionnaire was given to fill the answer to each respondent. Data were coded and entered in EPI 3.1 and was exported into IBM SPSS 20 version for analysis. Descriptive statistics and inferential statistics i.e. chi square was used for data analysis.

FINDINGS

Table 1: Socio-demographic and Professional related Characteristics of the Respondents.

Variables	Frequency	Percentage
n=132		
Age group in years		
17-23	106	80.3
24-30	26	19.7
<i>Median=22, IQR=23-2=2</i>		
Religion		
Hinduism	113	85.6
Buddhism	16	12.1
Christianity	3	2.3
Marital status		
Married	24	18.2
Unmarried	108	81.8
Professional qualification		
Proficiency Certificate Level Nursing	107	81.1
Bachelor in Nursing	25	18.9
Professional designation		
Staff nurse	120	90.9
Senior staff nurse	10	7.6
Nursing officer	2	1.5
Total work experience (in month)		
<10	62	46.97
10-20	29	21.97
>20	41	31.06
<i>Median=12, IQR=24-3=21</i>		
Present working ward		

Cabin	9	6.8
Intensive Care Unit	33	25.0
Medicine	25	18.9
Operation theatre	13	9.8
Gynae\Obstetric	14	10.6
Emergency	10	7.6
Orthopedic	7	5.3
Pediatric	12	9.1
Neurosurgery	9	6.8
Work experience at present ward (in month)		
<10		
10-20	64	48.48
>20	34	25.76
<i>Median=11, IQR=24-3=21</i>	34	25.76

Table 1 represents the socio-demographic and professional related characteristics of 132 respondents which shows that most (80.3%) of the respondents belongs to the age group of 17-23 and 19.7% belongs to the age group of 24-30 with median as 22 where maximum age was 30 years and minimum age was 18 years, most (85.6%) of respondents followed Hinduism. Regarding the marital status of respondents 81.8% were unmarried. In regards to professional qualification 81.1%

of respondents had completed PCL Nursing. Likewise, 90.9% of respondents were staff nurse, less than half (46.97%) of respondents had total work experience of less than 10 months with median as 12, one-fourth (25.0%) of respondents were presently working in Intensive Care Unit whereas 5.3% of respondents were working in orthopedic and 48.48% of respondents had work experience of less than 10 months with median as 11 at present ward.

Table 2: Respondents' Knowledge regarding General Information of Varicose Vein.

Variables	Frequency	n=132
		Percentage
Definition of Varicose vein		
Correct answer	69	52.3
Incorrect answer	63	47.7
Definition of telangiectasia		
Correct answer	62	47.0
Incorrect answer	70	53.0
Most common site by Varicose Vein		
Correct answer	46	34.8
Incorrect answer	86	65.2
Most affected body part by Varicose Vein		
Correct answer	122	92.4
Incorrect answer	10	7.6
Most common Cause of Varicose Vein		
Correct answer	41	31.1
Incorrect answer	91	68.9
Cause of Primary Vv		
Correct answer	37	28.0
Incorrect answer	95	72.0
Most common Cause of Secondary Varicose Vein		
Correct answer	94	71.2
Incorrect answer	38	28.8
Most common risk factor of Varicose Vein		
Correct answer	101	76.5
Incorrect answer	31	23.5
Sign and symptom of Varicose Vein		
Correct answer	90	68.2
Incorrect answer	42	31.8
Most common investigation for diagnosis of Varicose Vein		
Correct answer	78	59.1
Incorrect answer	54	40.9

Table 2 represents the respondent knowledge regarding general information of Varicose Vein.

Table 3: Respondents Knowledge regarding Management, Preventive Measures and Complication of Varicose Vein.

Variables	Frequency	Percentage
n=132		
Conservative management of Varicose Vein		
Correct answer	97	73.5
Incorrect answer	35	26.5
Degree of leg elevation		
Correct answer	36	27.3
Incorrect answer	96	72.7
Timing for application of compression stocking		
Correct answer	46	34.8
Incorrect answer	86	65.2
Types of compression stocking applied when Vv is affected above knee		
Correct answer	58	43.9
Incorrect answer	74	56.1
Types of compression stocking applied when Vv is affected below knee		
Correct answer	47	35.6
Incorrect answer	85	64.4
Surgical management of Varicose Vein		
Correct answer	86	65.2
Incorrect answer	46	34.8
Preventive measures of Varicose Vein		
Correct answer	57	43.2
Incorrect answer	75	56.8
Most common complication of Varicose Vein		
Correct answer	43	32.6
Incorrect answer	89	67.4

Table 3 represents the respondent knowledge regarding management, preventive measures and complication of Varicose Vein.

Table 4: Respondents' level of Knowledge regarding Varicose Vein.

Level of knowledge	Frequency	Percentage
Adequate knowledge (>75%)	39	29.5
Moderate knowledge (50%-75%)	35	26.5
Inadequate knowledge (<50%)	58	43.9
Total	132	100

Median value of overall knowledge score = 9, Maximum: 16, Minimum: 3

Table 4 represents the respondent level of knowledge regarding Varicose Vein which shows that 29.5% had adequate level of knowledge, 26.5% had moderate level of knowledge and 43.9% of respondents had inadequate level of knowledge.

Table 5: Association between Respondents' level of Knowledge regarding Varicose Vein and Selected variables.

Variables	Level of knowledge			χ^2	p-value
	Adequate n(%)	Moderate n(%)	Inadequate n(%)		
Age group (in years)					
<22	19(29.2)	19(29.2)	27(41.5)	0.528	0.768
≥22	20(29.9)	16(23.9)	31(46.3)		
Religion					
Hindu	4(21.1)	4(21.1)	11(57.9)	0.1775	0.412
Non-hindu	35(31.0)	31(27.4)	47(41.6)		
Marital status					
Married	8(33.3)	8(33.3)	8(33.3)	0.1408	0.495
Unmarried	31(28.7)	27(25.0)	50(46.3)		
Professional qualification					
Proficiency certificate level Nursing	27(25.2)	28(26.2)	52(48.6)	0.6371	0.041
Bachelor in Nursing	12(48.0)	7(28.0)	6(24.0)		

Total work experience (in month)					
<12	23(34.8)	17(25.8)	26(39.4)	0.1906	0.386
≥12	16(24.2)	18(27.3)	32(48.5)		
Present working ward					
General ward	27(28.1)	26(27.1)	43(44.8)	0.341	0.843
Intensive care unit	12(33.3)	9(25.0)	15(41.7)		
Work experience at present ward (in month)					
<11	22(33.3)	18(27.3)	26(39.4)	0.1290	0.525
≥11	17(25.8)	17(25.8)	32(48.5)		

Significance level <0.05

Table 5 represents the association between respondent level of knowledge regarding varicose vein and selected variables. Hence, this table shows that level of knowledge regarding varicose vein was statistically significant with professional qualification ($p=0.041$).

DISCUSSION

The findings of the study revealed that 43.9% had inadequate level of knowledge regarding varicose vein. This finding is not supported by the study conducted in Indore, India of Malviya & Saji (2018) which revealed that 20% of the respondents had poor knowledge regarding varicose vein and its management. Similarly this findings is in contrast to a study conducted in Mangaluru, India of Tauro, Souza, Kuriakose, B.T, & G.R (2015) which revealed that none of the respondents had poor knowledge regarding risk factor and preventive measures of varicose vein. This finding is in contrast to another study conducted in Waghodia, Vadodara of H.N, Thakor, & Christian, (2018) which revealed that 10% of the respondents had inadequate level of knowledge regarding risk factors and preventive measures of varicose vein.

The findings of this study revealed that there was statistically significant association between level of knowledge and professional qualification. This findings is supported by H.N, Thakor, & Christian, (2018) that revealed there was significant association between the level of knowledge and selected educational qualification. This study findings is supported by Tauro et al., (2015) that also revealed there was significant association between the level of knowledge and academic qualification ($p>0.05$). This findings is in contrast to this study that there was no statistically significant association between the level of knowledge and marital status, years of experience in present ward and source of knowledge.

CONCLUSION

Based on the discussion and findings of the study conclusion has been drawn. Study shows that about half (43.9%) had inadequate level of knowledge regarding varicose vein. These findings point the need to upgrade nurses knowledge through appropriate in-service education and training programmes on awareness regarding various health problems regarding varicose vein and its preventive measures.

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