A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE AND PRACTICES REGARDING PREVENTION OF VARICOSE VEIN AMONG THE SELECTED GROUP OF PEOPLE OF GUWAHATI, ASSAM.

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Abstract:

Background: Lower limb varicose veins are common and known to have a higher prevalence among people who work in occupations requiring prolong standings. Varicose veins are a common chronic venous disorder affecting 20 to 60% of adults worldwide [1,2,3]. Approximately 23% of the US adults have Varicose veins. [4]. The extrapolated prevalence rate of varicose vein in India providing warning is about 47,928,177 in statistics.[5] Varicose vein in the legs can be complicated by, Chronic venous ulcerations, venous thromboembolism and haemorrhage from ruptured.[6] **Aim:** The aim of the study was to assess the effectiveness of information booklet on knowledge and practices regarding prevention of varicose vein among the selected group of people of Guwahati, Assam. **Method and Material:** The research approach adopted for the study was quantitative approach. Pre experimental one group pre-test post-test design was used in this study . Purposive sampling technique was used to select the samples. The sample size was 90 peoples (30 shopkeepers, 30 hairdressers and 30 security guards) who fulfilled the inclusion criteria. Study were conducted in selected hospital, local beauty parlour and local shop in Guwahati, Assam. Pretest knowledge and practices were checked with semi structured questionnaires and inventory checklist respectively and post test was conducted after 7 days in the same manner. The technique used was self report. **Results:** Out of 90 respondents, the mean knowledge score before and after intervention were 6.2 and 13.71 respectively. The mean practices score before and after intervention were 3.45 and 6.85 respectively. The information booklet was proved effective where the calculated value of 'Z' (13.12) and (16.19) was more than the tabulated value (2.33) at 0.01% level of significance. So, it signifies that the information was effective as it increase the post test level of knowledge and practices. There was no significant association between pre test knowledge with selected demographic variables whereas there was significant association between pretest practices with selected demographic variables such as Age and working experience. The calculated 'r' value for pretest knowledge and practices, r= 0.62, and post test knowledge and practices, r= 0.42 showed there was moderately positive correlation. **Conclusion:** This

study showed that after giving information booklet there was an improvement in the knowledge score and practices score, suggestive of effectiveness of the information booklet on prevention of varicose vein. Hence awareness program in regular period will help in gaining knowledge and practices regarding prevention of varicose vein among high risk people to have a healthy society

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Keywords: Knowledge, Practices, Information booklet, prevention of Varicose vein.

1. Introduction

Varicose vein are enlarged, swollen, and twisting veins, often appearing blue or dark purple in the leg or feet. They happen when faulty valves in the veins allow blood to flow in the wrong direction or to pool.[7] Lower limb varicose vein are common and known to have a higher prevalence among people who work in occupation requiring prolong standing such as teacher, traffic police, staff nurse. pregnancy, obesity, female gender, use of hormonal contraceptive pill, increasing age, congenital weakness in the vein structure. Accumulation of more and more venous blood in the superficial venous system makes the superficial veins dilated and tortuous. We can prevent varicose veins by avoidance of activities that causes venous stasis such as wearing constricting stocks that are too tight at the tip, crossing legs on thighs and sitting or standing for long periods. Changing the position frequently , elevating legs when they are tier and getting up to walk for several minutes of every hours to promote circulation, swimming is a good exercise and control your weigh, avoid wearing high heeled shoes every day. {Pradnya P Dhuri} [8]

Long existing varicose veins is not only a cosmetic issues it invariably lead to skin lessions which at the worst will end up in an ulcer and haemorrhage which is fatal. [6] Therefore an early prevention is require to prevent from the bad outcome. And also varicose vein are increasing worldwide. So the prevention of varicose vein is an important factor in the society moreover varicose vein can be prevented. So there is a need to educate the highly prone people regarding these condition in order to prevent it.

Objectives

1. To assess the level of knowledge regarding prevention of varicose veins among the selected group of people.
2. To find out the practices regarding the prevention of varicose veins among the selected group of people.
3. To find out the effectiveness of information booklet on knowledge and practices regarding the prevention of varicose veins among the selected group of people.

4. To find out correlation between knowledge and practices regarding prevention of varicose vein among the selected group of people before and after administration of information booklet.

5. To find out association between pre test knowledge and practices with selected demographic variables such as age, gender, occupation, working experience and working hours of the selected group of people.

2. Methods and Materials

The research approach adopted for the study was quantitative approach. Pre experimental one group pre-test post-test design was adopted for this study. Non-probability purposive sampling technique was used to select the samples. The samples were 90 peoples (30 shopkeepers, 30 hairdressers and 30 security guards) who fulfils the inclusion criteria. The study was conducted in Guwahati, Assam. Pre test knowledge and practices were checked with semi structured questionnaires and inventory checklist respectively and post test was conducted after 7 days in the same manner. Technique used was self- report.

Data collection procedure: To conduct the main study a formal written application was obtained from the medical superintendent and manager of the selected hospital and parlour respectively by the investigator before the collection of the data. The investigator visited the hospital, parlour and local shop and the respondents were selected based on the purposive sampling technique. The investigator explained the purpose of her study and she assured them of the confidentiality and anonymity to get their co-operation and prompt responses during data collection. A written informed consent was also taken from the people. Then the pre test knowledge questionnaire and inventory checklist was administered. Information booklet was given on the same day after completion of the pre test. Post test was administered to the same group of people by using the same knowledge questionnaire and inventory checklist on the seventh day.

3. Results

Section-I: Analysis of demographic characteristics of the respondents

Table 1: Frequency and percentage of the respondents according to their demographic characteristics.

n= 90

Demographic performa	Frequency (f)	Percentage (%)

A. Age in years		
1. ≤ 30	35	38.89
2. 31- 40	32	35.56
3. 41-50	19	21.11
4. > 50	4	4.44
B. Gender		
1. Male	50	55.56
2. Female	40	44.44
C. Educational Qualification		
1. Primary	13	14.44
2. High school	35	38.89
3. Higher secondary	28	31.11
4. Graduate and above	14	15.56
5. Others	0	0
D. Occupation		
1. Shopkeeper	30	33.33
2. Hairdresser	30	33.33
3. Security Guard	30	33.34
E. Working Experience		
1. 0-5 years	47	52.22
2. 6-10 years	26	28.89
3. 11-15 years	9	10
4. >15 years	8	8.89
F. Marital Status		
1. Married	53	58.89
2. Unmarried	35	38.89
3. Divorce	2	2.22
4. Widow	0	0
G. Working hours		
1. <6hours/ day	6	6.67
2. 6-8 hours/day	30	3.33
3. 8-12hours/day	48	53.33
4. >12hours / day	6	6.67
H. Have you heard about varicose vein		
1. yes	2	2.2
2. No	88	97.8
I. Commonly used position during working hours		
1. Sitting	25	27.78
2. Standing	54	60
3. Walking	11	12.22
J. Do you exercise daily		
1. Yes	24	26.67
2. No	66	73.33
K. Family history of varicose vein		
1. Yes	1	1.11
2. No	89	98.89

Section-II: Assessment of knowledge score and practices score regarding prevention of varicose vein among selected group of people before and after administration of the information booklet.

Table2: Frequency & Percentage distribution of the respondents according to their level of Knowledge regarding prevention of varicose vein before and after administration of information booklet.

n= 90

Knowledge	Inadequate < 8(<33%)		Moderately adequate 8-16 (33-66%)		Adequate >16 (>66%)	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Pre test knowledge	76	84.5%	12	13.3%	2	2.2%
Post Test Knowledge	15	16.67%	41	45.55%	34	37.78%

The data presented in the above table 2 shows that out of 90 people in pre test knowledge, majority i.e. 76 (84.5%) had inadequate knowledge, 12 (33.3%) had moderately adequate knowledge and 2 (2.2%) had adequate knowledge. In post test knowledge, majority i.e. 41 (45.55%) had moderately adequate knowledge, 34 (37.78%) had adequate knowledge and 15 (16.67%) had inadequate knowledge.

n=90

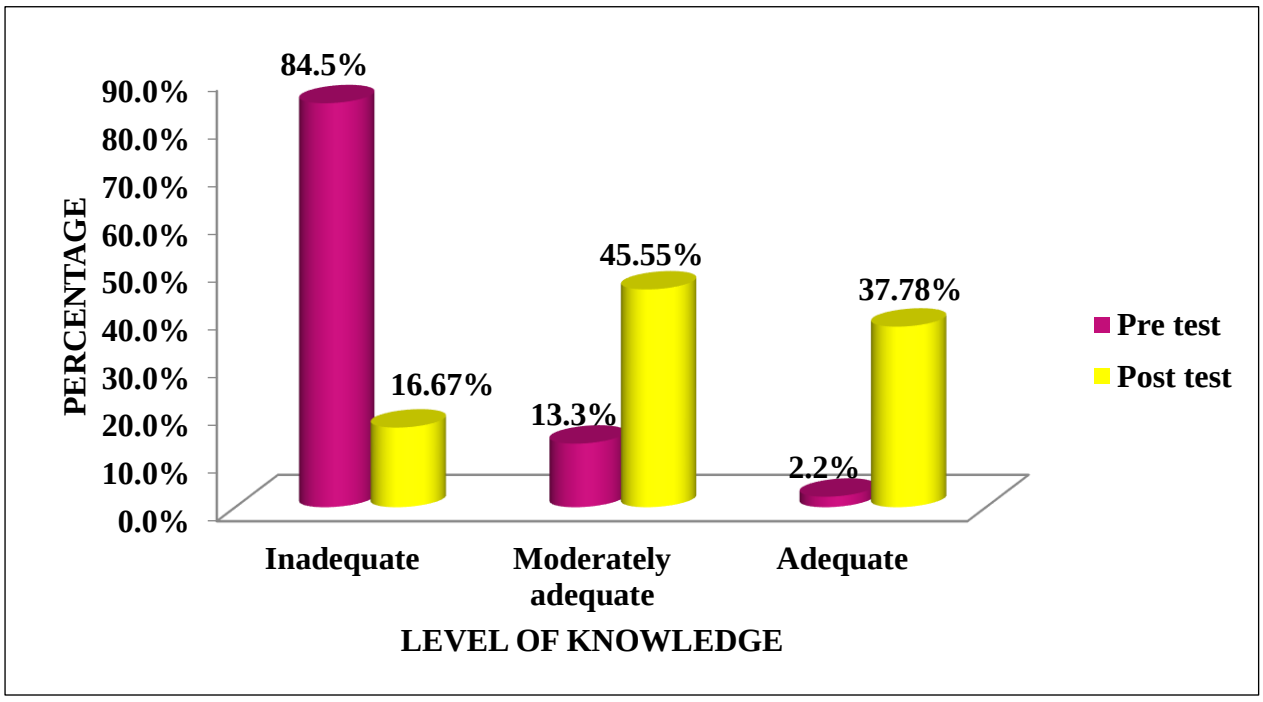

Figure 1 : Percentage distribution of the respondents pre test knowledge score and post test knowledge score.

Table 3: Frequency & Percentage distribution of the respondents according to their level of practices regarding prevention of varicose vein before and after administration of information booklet.

n=90

Practices	**Inadequate < 3(<33%)**		**Moderately adequate 3-7 (33-66%)**		**Adequate >7 (>66%)**	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Pre Test practices	36	40%	54	60%	0	0%
Post Test practices	6	6.6%	56	62.2%	28	31.1%

The data presented in the above table 3 shows that out of 90 respondents in pre test practices, majority ie 54 (60%) had moderately adequate practices on prevention of varicose vein and 36 (40%) had inadequate practices and no one ie (0%) had adequate practices. In post test majority i.e 56 (62.2%) had moderately adequate practices on prevention of varicose vein and 28 (31.1%) had adequate practicse and 6(6.6%) had inadequate practices.

n=90

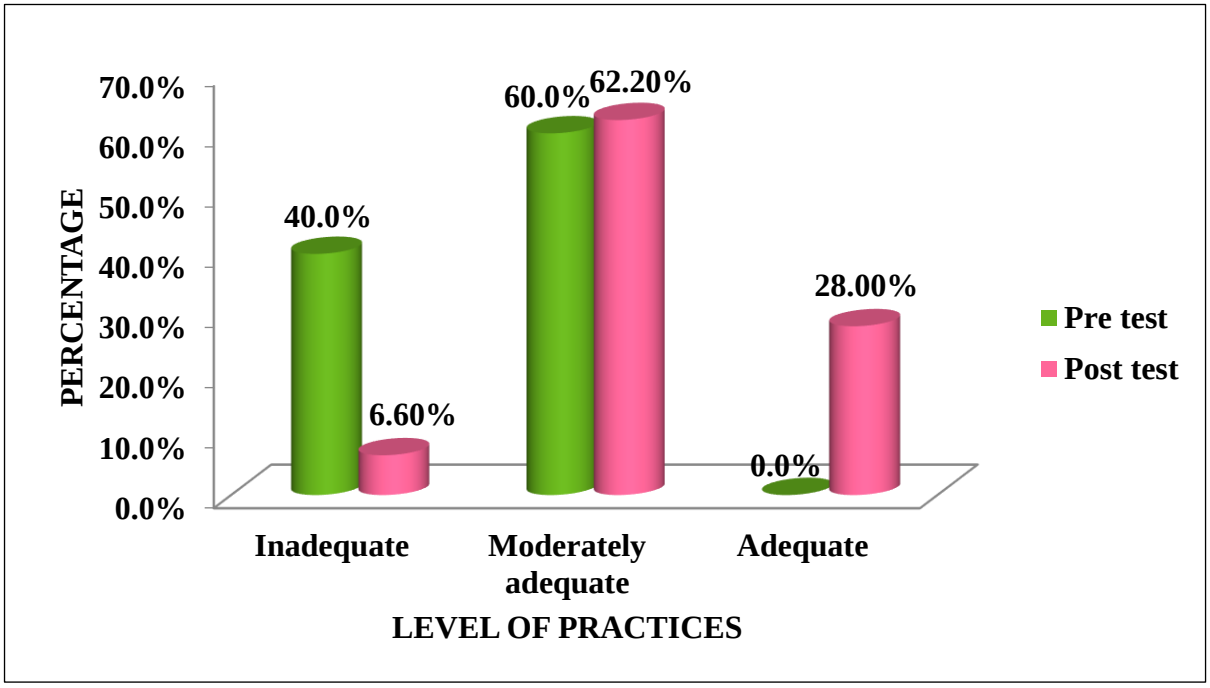

Figure 2: Percentage distribution of pre test practices score and post test practices score of the respondents.

Table 4: Mean range and Standard deviation of knowledge and practices of the respondents regarding prevention of varicose vein before and after administration of information booklet.

n=90

Aspects	Total score	Range of scores	Mean	SD
Pre test knowledge	24	2-18	6.2	2.77
Post test knowledge	24	4-21	13.71	4.68
Pre test practices	10	1-7	3.45	1.66
Post test practices	10	2-9	6.85	1.64

Section-III: Evaluation of the effectiveness of information booklet

Table 5: Evaluation of the effectiveness of information booklet on knowledge and practices regarding prevention of varicose vein among selected group of people in Guwahati, Assam.

n=90

Aspects	Mean	SD	Level of significance (α)	Calculated Z- value	Table Z-value
Pre test knowledge	6.2	2.77	0.01	13.12	2.33
Post test knowledge	13.71	4.68			
Pre test Practices	3.45	1.66	0.01	16.19	2.33
Post test Practices	6.85	1.64			

The data presented in the above table 5 shows that, the calculated value of 'Z' (13.12) and (16.19) was more than the tabulated value (2.33) at 0.01% level of significance. So, it indicates that the mean posttest knowledge and practices was significantly higher than the pretest knowledge and practices. Hence the information booklet regarding prevention of varicose vein was effective in improving the knowledge and practices of the selected group of people.

Section-IV: Correlation between knowledge and practices regarding prevention of varicose vein among selected group of people. before and after administration of the information booklet.

Table 6: correlation between pre-test knowledge and pre test practices of people regarding prevention of varicose vein.

n=90

Variables	Mean	SD	Correlation coefficient (r)
Pre test Knowledge	6.2	2.77	0.67
Pre test practices	3.45	1.66	

The data presented in the above table 6 shows the correlation between the pretest knowledge and pretest practices. The correlation was statistically calculated by using Karl Pearson correlation coefficient (r). The calculated 'r' value was found to be, r= 0.67, showed there was moderately positive correlation between pretest knowledge and pretest practices.

Table 7: Correlation between post-test knowledge and post test practices of selected group of people regarding prevention of varicose vein.

n=90

Variables	Mean	SD	Correlation coefficient (r)
Post test Knowledge	13.71	4.68	0.42
Post test Practices	6.85	1.64	

The data presented in the above table 7 shows the correlation between the post test knowledge and post test practices. The correlation was statistically calculated by using Karl Pearson correlation coefficient (r). The calculated 'r' value was found to be, r= 0.42, showed there was moderately positive correlation between post test knowledge and post test practices.

Section-V: Association of knowledge and practices with the selected demographic variables such as age, gender, occupation, working experience and working hours.

Table 8: Association of pre-test knowledge with selected demographic variable

n=90

Demographic Variables	**Calculated Value of χ2**	**Tabulated Value of χ2**	**Level of significance**	**df**	**Remark**
1. Age	1.54	3.84	0.05	1	Non significant
2. Gender	0.52	3.84	0.05	1	Non significant
3. Occupation	0.56	5.99	0.05	2	Non significant
4. Working experience	0.026	3.84	0.05	1	Non significant
5. Working hours	2	3.84	0.05	1	Non significant

The data presented in above table 8 depicts that there was no significant association between pre test knowledge regarding prevention of varicose vein and their selected demographic variables such as age, gender, occupation, working experience and working hours.

Table 9: Association of pre-test practices with selected demographic variables.

n=90

Demographic Variables	Calculated Value of χ2	Tabulated Value of χ2	p-value	df	Remark
1. Age	12.3	3.84	0.05	1	Significant
2. Gender	0.18	3.84	0.05	1	Non significant
3. Occupation	1.93	5.99	0.05	2	Non significant
4. Working experience	8.5	3.84	0.05	1	Significant
5. Working hours	0.46	3.84	0.05	1	Non significant

The data presented in the above table 9 depicts that there was statistically significant association between pre test practices regarding prevention of varicose vein and selected demographic variable such as age and working experience whereas there was no association with other selected demographic variables such as gender, occupation and working hours.

4. Discussion

The analysis depicted that the mean knowledge score in pre test was 6.2 with standard deviation of 2.77. In post test the mean knowledge score was 13.71 with standard deviation of 4.68. The mean practices score in pre test is 3.45 with standard deviation of 1.66. In post test, the mean practices score is 6.85 with standard deviation of 1.64. The improvement was statistically tested by 'Z' test. The calculated value of 'Z' (13.12) and (16.19) were more than the tabulated value (2.33) at 0.01% level of significance. So it indicates that the mean posttest knowledge and practices was significantly higher than the pretest knowledge and practices . This indicated that the information booklet regarding prevention of varicose vein was effective in improving the knowledge and practices of the people.

The present study was supported by the study of Upendrababu V, Singh R, Afreen, Deeksha, Kumar K, Fatma R.(2018) who conducted a pre-experimental study (evaluative approach one group pre test post test) to assess the effectiveness of information booklet on knowledge regarding varicose vein and its prevention among staff nurses. 30 staff nurses were selected by using non probability convenient sampling technique from the Rama hospital, Kanpur. After getting the consent from the samples demographic data and knowledge were collected with the help of a structured questionnaire. The pretest knowledge was assessed on the first day and information booklet was given on the same day and post test knowledge was assessed by using the same tool on the 7th day .The study was Statistical significant at 0.005 level. The total mean post-test knowledge score (12.6) was higher than the mean pretest score (8.73). Therefore the study result conclude that there was a significant improvement in the knowledge level of staff nurses after the provision of information booklet Thus concluding that information booklet is an effective strategy to improve the knowledge among staff nurse.[10]

3. Conclusion

Out of 90 respondents, In the pre test, majority i.e. 76 (84.5%) had inadequate knowledge and 54 (60%) had moderately adequate practices.. In post test, majority i.e. 41 (45.55%) had moderately adequate knowledge and 56 (62.22%) had moderately adequate practices. The calculated value of 'Z' (13.12) and (16.19) were more than the tabulated value (2.33) at 0.01% level of significance which indicated that the information booklet regarding prevention of varicose vein was effective in improving the knowledge and practices of the selected group of people. The calculated 'r' value was found to be (r= 0.62) and (r= 0.42) showed there was moderately positive correlation between pretest knowledge with pretest practices and post test knowledge with post test practices resepectively. Hence, with increased in knowledge, there is gradually increased in practices. There was no significant association between pre test knowledge regarding prevention of varicose vein with selected demographic variables such as Age, gender, occupation, working experience and working hours. Whereas there was significant association between

pretest practices regarding prevention of varicose vein with selected demographic variables such as Age and working experience but there is no association with gender, occupation, and working hours. The investigator concluded that majority of the people were not much aware about varicose vein and this study showed the effectiveness of the information booklet on prevention of varicose vein. Hence awareness program in regular period will help in gaining knowledge and practices regarding prevention of varicose vein among high risk people to have a healthy society.

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