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Research Article

Knowledge on Varicose Vein among Security Guards Working in a Selected Hospital, at Mangaluru

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Abstract

Aim: The aim of the study was to create an awareness of varicose veins among security guards.

Background: Varicose veins are swollen, twisted, and sometimes painful veins that have filled with an abnormal collection of blood which is commonly seen in workers who does their job for standing longtime.

Methodology: A descriptive cross-sectional study was done among 73 security guards working in a specialized hospital using nonprobability purposive sampling using a valid structured knowledge questionnaire.

Results: In this study, majority of the subjects (46.6%) were in the age group of 41 years', majority (83.6%) were standing during work, and working hours is 98.6%**.** The computed *P* values of the baseline variable, posture during work (χ^2 =6.075; *P* = 0.048*). Whereas, the baseline variable such as age (χ^2 = 7.085; *P* = 0.131), sex (χ^2 = 0.313; *P* = 0.576), education(χ^2 _ 6.140; *P* = 0.105), experience (χ^2 = 2.825; *P* = 0.244), total hours of working (χ^2 = 1.485; *P* = 0.233), duration of standing (χ^2 = 1.562; *P* = 0.668), shift changes (χ^2 = 4.930; *P* = 0.085), and previous knowledge (χ^2 = 1.485; *P* = 0.223) is more than 0.05 level of significance.

Conclusion: The duties and responsibilities of security guards are different in different areas. The result of this study helped to provide general information about varicose veins among security guards which will give baseline knowledge to the health professionals so they can suggest good health practices and promote good general health.

Keywords: Knowledge, security guards, varicose vein

Introduction

The people who are involved in prolonged sitting or standing during their daily activities are prone to developing varicose veins,[1] the reason is the same for the security guards, who are as a part of their profession need to stand for prolonged periods, placing them at the highest risk of developing varicose veins.[2]

Varicose veins are swollen, twisted, and sometimes painful veins that have filled with an abnormal collection of blood.[3]

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The definition of varicose vein is veined with incompetent valves that are enlarged tortuous and thickened.[4] An estimated 10–20% of the general population has varicose veins. Varicose veins are caused by the development of weak or faulty valves inside veins.[5]

Work is a part of our life. Most of the occupations such as security guards, policemen, teachers, nurses, shopkeepers, and bus conductors[6] are working in standing posture and these people are more prone to develop varicose veins in their later life.[7] The main of this was to assess the knowledge of security guards and create awareness among them.[8]

Methods

A descriptive cross-sectional study was done among 73 security guards working in Mangaluru with a minimum of 1 year of service as a security guard was included in the study Samples were selected by nonprobability purposive sampling.

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The data were collected using a valid structured knowledge questionnaire.

All the tools were validated and the tool was found reliable. The tools used were demographic pro forma, structured knowledge questionnaire. The demographic pro forma was designed to collect the background information of the subjects. It consists of nine items which include age, sex, education, duration of standing, years of experience, total hours of working per day, posture during work, shift changes, and the previous knowledge on the varicose vein. To collect the information regarding the knowledge of varicose veins among security guards a structured knowledge questionnaire was designed. It consists of 18 items.

Statistical analysis

Descriptive statistics

Mean, median, standard deviation, and mean score percentage were used to quantify the level of knowledge toward varicose vein.

Inferential statistics

Chi-square test was used to find an association between knowledge and selected demographic variables.

Results

The analysis and interpretation of the data were collected from 73 participants to assess the knowledge on varicose veins among security guards. The collected data are tabulated, analyzed, and interpreted using descriptive and inferential statistics on the basis of objective and hypothesis formulated for the purposes of the study.

The data in Table 1 reveal that the majority (34.2%) of the participants were above 41-years-old and 26% of participants belong to 36 to 40 years. Majorities of participants were male (93.2%) and very few female participants (6.8%). Majorities of participants were completed till 8–10th (52.1%) were very few of them have done a degree (6.8%). Most of the participants have 1–5 years of experience (84.9%) and were very few participants have more than 10 years of experience (2.7%). The data reveal that majorities of participants are working 8–12 h (98.6%) and the rest (1.4%) are working 6–8 h. Among the participants (83.6%) were standing and (5.5%) were walking. Majorities (53.4%) of participants were standing for 5–8 h and 15.1% were standing for 1–4 h. Almost less than half of the participants (43.8%) were having monthly shift changes whereas 27.4% had weekly shift changes. Majorities of participants were not having previous information about the varicose vein (98.6%) and very few had information about the varicose vein (1.4%).

Section 2: Description of assessment of knowledge level on security guards regarding varicose vein

This section deals with the assessment of knowledge using a knowledge questionnaire of 73 security guards. The data were analyzed using descriptive statistics as presented in the Table 2.

Table 1: Frequency and percentage of distribution of participants according to baseline variables. *n*=73

Variables	Frequency	Percentage
Age in years 20–25	4	5.5
26–30	14	19.2
31–35	11	15.1
36–40	19	26
≥41	25	34.2
Sex		
Male	68	93.2
Female	5	6.8
Education status		
<7	5	6.8
8–10	38	52.1
PUC	25	34.2
Degree diploma	5	6.8
Total years of experience		
1–5	62	84.9
6–10	9	12.3
>10	2	2.7
Total hours of working day		
6–8	1	1.4
8–12	72	98.6
Posture during work		
Sitting	8	11
Standing	61	83.6
Walking	4	5.5
Duration of standing		
1–4	11	15.1
5–8	40	54.8
>8	22	30.1
Shift charges		
Daily	21	28.8
Weekly	20	27.45
Monthly	32	43.8
Previous information about varicose vein		
Yes	72	98.6
No	1	1.4

Frequency and percentage of distribution of participants

Table 2: Assessment of the knowledge level of security guards regarding varicose vein. *n*=73

Knowledge level	Grading	Frequency	Percentage
Good	12–18	29	39.7
Average	6–11	37	50.7
Poor	<6	7	9.6

Maximum score=18

Table 3: Overall mean, standard deviation, and mean percentage of knowledge questionnaire

Variables	Mean±SD	Mean %
Knowledge Questionnaire	10.09±3.57	56.05%

Maximum score=18

Section 3: Association between the knowledge level on varicose veins among security guards and selected demographic variables

H1: There will be a significant association between knowledge scores on varicose veins and selected demographic variables.

The data presented in Table 4 reveal that the computed *P* values of the baseline variable, posture during work (χ^2 = 6.075;

Table 4: Association between the knowledge level on varicose veins among security guards and selected demographic variables.

Variables	Median		χ^2 value	*P* value
	<1	<10		
Age in years				
20–25	4			
26–30	9		7.085	0.131
31–35	6			
36–40	9			
>41	14			
Sex				
Male	36		0.666	*0.576*
Female	2		Fisher's exact	
Educational status				
<7	4	1	6.140	0.105
8–10	21	17		
PUC	9	16		
Degree or diploma	4	1		
Experience				
1–5	32	30	2.825	0.244
6–10	4	5		
>10	2	0		
Total hours of working				
6–8	0	1	0.479	0.223
8–12	38	34	Fisher's exact	
Posture during work				
Sitting	5	3	6.075	0.048*
Standing	29	32		
Walking	4	0		
Duration of standing				
1–4	6	**5**	1.562	0.668
5–8	19	20		
>8	12	10		
Shift changes				
Daily	10	11	4.930	0.085
Weekly	7	13		
Monthly	21	11		
Previous information about varicose vein				
Yes	0	1	0.479	0.223
No	38	34	Fisher's exact	

P =0.048 *) is lesser than 0.05 level of significance, thus H_1 accepted. Whereas, the baseline variable such as age ($\chi^2 = 7.085$; $P = 0.131$), sex ($\chi^2 = 0.313$; $P = 0.576$), education ($\chi^2 = 6.140$; $P = 0.105$), experience ($\chi^2 = 2.825$; $P = 0.244$) total hours of working (χ^2 =1.485; $P = 0.233$), duration of standing (χ^2 _1.562; $P = 0.668$) shift changes (χ^2 =4.930; $P = 0.085$), and previous knowledge (χ^2 =1.485; $P = 0.223$) is more than 0.05 level of significance. Hence, H_0 is accepted as there is no significant association between demographic variable and knowledge level of security guards regarding varicose vein.

Discussion

This chapter deals with the major findings of the present study and discusses them in relation to similar studies conducted by other researchers. The present study assessed the knowledge of varicose veins among security guards. The findings of the study are discussed under the following sections: In the present study, majority of the security guards (46.6%) were in the age group of more than 41 years' maximum number of subjects were in male gender (93%) Most subjects belong to secondary education category (52.1%), majority (84.9%) were having 1–5 years of experience, majority (83.6%) were standing during work, and their working hours is 98.6% and was found that there is no association between the knowledge scores and the selected demographic variables such as age, education, year of experience, and sources of information (Table 1).

These findings are found similar to the study was done among 150 security guards working in Udupi District with a minimum of 1 year of experience were selected by systematic random sampling technique.[9] The interview method was used to identify the risk factors of varicose veins among the security guards. The study result shows that out of 150 security guards, 5.3% had a family history of varicose veins, only 6% had taken treatment for vein problem, 56.7% of them maintained standing position during their work and had a habit of smoking 32.7%, history of consuming alcohol 40.7%, history of constipation 23.3%, not doing exercises daily 65.3%, no habit of using the stockings 87.3%, and no habit of elevating the legs while sleeping 95.3%.[10] The occurrence rate is found to be higher for those who stand for long hours. It affects 68% of those in occupations that involve standing for long hours.[10]

The present study reveals that majorities of security guards 50.7% are having average knowledge, 39.7% are having good knowledge, and 9.6% are having poor knowledge (Table 2). The mean percentage of knowledge score was 10.09±3.57 (Table 3). These findings are similar to a study that was conducted on knowledge about varicose veins among security guards in Mangalore. A total of 100 security guards participated and the result showed the majority had the average knowledge (70%), 27% had poor knowledge, and only 3% had good knowledge. Another study about knowledge regarding prevention of varicose vein shows that 4.4% of participants have high knowledge about varicose vein whereas 84.4% have poor knowledge and 6.7% of participants have moderate knowledge about the varicose vein.[11]

The present study has enriched the learning experience of the investigator. The process in formulating the statement of the problem, framing the objectives and hypothesis, developing the conceptual frame working has enhanced the understanding of the research process. Another study was conducted in Tamil Nadu. A total of 35 security guards were selected for the study using the purposive sampling technique. The demographic profiles were collected from the security guards. A pre-test was conducted to assess the level of knowledge on the prevention of varicose veins using a structured questionnaire. Structure teaching was given to security guards for 30 min with flashcards. Post-test was conducted by using a structured questionnaire on the 5th day. It was identified that the mean level of knowledge score was 11.6 and 17.85, respectively with the mean difference of 6.25. Standard deviations were 3.33 and 5.49. The calculated t value of 7.75 was greater than the table value of 3.65 at a 0.05 level of significance. Hence, the structure teaching program was an effective method for providing moderate to adequate

knowledge and helped the security guards to enhance their knowledge to prevent varicose veins.[12]

The in-depth search for related reviews aided in discovering the studies conducted worldwide. Identifying the right statistical analysis and interpreting the findings captivated the interest of the investigator throughout the study. The present study identified some of the risk factors of varicose veins among the security guards which give the input for the health workers to educate the security guards and motivate them to follow healthy habits to prevent further complications. The nurse researcher should acquire wide knowledge regarding the new trends in the existing health scenario. The present study is an effort to assess the knowledge of varicose veins among security guards this can be attained through health education, proving information leaflets, and pamphlets.[13]

Conclusion

This chapter has dealt with the major findings and discussion of the study findings with the help of a review of the literature. The present study reveals that majorities of security guards 50.7% are having average knowledge, 39.7% are having good knowledge, and 9.6% are having poor knowledge (Table 2). The findings of the study have several implications in the fields of nursing education, nursing practice, nursing research, and nursing administration.

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Conflict of Interest

No conflict of interest

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