
A STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING VARICOSE VEINS AMONG SECURITY GUARDS AT HARIDWAR UNIVERSITY ROORKEE, UTTARAKHAND

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ABSTRACT**Background of the Study**

Varicose veins are one of the chief preventable diseases which are associated with veins. It is a serious disease, which poses threats to life of patient when effective and efficient measures not taken. Modern world a lot of occupations and professions have designed up where people are required to either continuously stand for a long time or made to sit hanging down for a considerable time. The varicose vein sufferers the following professions like security guards, traffic police, computer professionals, teachers, nurses, paramedical workers in hospital settings.

Objectives

- A study to assess the existing level of knowledge regarding varicose vein among security guards of Haridwar university Roorkee, Uttarakhand..
- To evaluate the effectiveness of structured teaching programme on knowledge regarding varicose vein of security guards at Haridwar university Roorkee, Uttarakhand..
- To associate the pre-test knowledge score with their selected socio- demographic variables

CONCEPTUAL FRAMEWORK

The conceptual framework adopted for the study was modified Bertalanffy General System Theory.

HYPOTHESIS

H0- There will be no significant differences in the level of knowledge regarding varicose vein among the security guards of Haridwar university with their selected demographic variable at $p < 0.05$ level.

H1- There will be a significant association in the level of knowledge regarding varicose vein among security guards of Haridwar university with their selected demographic variables at $p < 0.05$ level.

MATERIAL AND METHODS

The study was conducted at Vivekananda Polyclinic and Institute of Medical Sciences Lucknow, U.P. The population for the present study was Security Guards. The sample size is 30. The research design adopted for the present study is the quasi experimental. Planned questionnaire tool was used to assess the level of knowledge on varicose vein among Security Guards. The sample size is 30. Pre-test level of knowledge on varicose vein was assessed on the first day of first week. Following the assessment planned teaching programme was administered in groups. Group sessions were conducted for 45 minutes to 1 hour, planned teaching programme was administered using PowerPoint, flash card, pamphlet, flipcharts, chart paper, exercise demonstration. After planned teaching programme one-week later post-test level of knowledge regarding varicose vein was assessed. The data was tabulated and analysed with the help of descriptive and inferential statistics and findings were interpreted.

RESULTS

- The data shows that sources of knowledge that most of the security guards 33.33% were 18-25 years of age, where as 30% were 25-30 years of age, 6.66% were age group 30-35 years, 30% were age group above 35 years. Gender that majority of security guards 100% were male, 0% were female. Religion that majority of security guards 86.66% were Hindu, 13.33% were Muslim, 0% were Christian and 0% were others. Educational qualifications that majority of security guards 60% were Intermediate, 26.66% were High School, 13.33% were Secondary education, 0% were Primary education. Diet that majority of security guards 66.66% were vegetarian, 10% were non-vegetarian, 23.33% both.
- Majority of security guards does not have any bad habit i.e., 83.33% and 16.66% are smokers. 83.33% security guards are of normal weight. 10% are less than normal and 6.66% are obese.

- The data expresses that there is significant difference between pre-test and post-test difference. The result that post-test mean knowledge score was found higher mean (19.93) and S.D (4.048) when compared with pre-test knowledge score, mean (11) and SD (4.066). „t“ calculated value was **-12.37 which was more than tabulated value** at 0.05 level of significance. This indicates that structured knowledge questionnaire was effective in enhancing knowledge regarding varicose vein.
- There is no association between the pre-test knowledge scores of the samples with their socio-demographic variables like age ($\chi^2=3.63$, $p>0.05$), gender ($\chi^2=0$, $p>0.05$), religion ($\chi^2=2.46$, $p>0.05$), education ($\chi^2=2.16$, $p>0.05$), diet ($\chi^2=0.76$, $p>0.05$), exercise ($\chi^2=7.65$, $p>0.05$), personal habits ($\chi^2=0.02$, $p>0.05$), weight ($\chi^2=1.15$, $p>0.05$) and working hours ($\chi^2=0$, $p>0.05$). Chi square test was used to find out significant association between varicose vein
- with selected socio demographic variables . There was only association between exercise with varicose vein ($\chi^2=7.65$, $p>0.05$)

CONCLUSION

Hence, planned teaching program is appropriate and feasible to implement in all settings. It would help the Security Guards to improve their knowledge on preventive measures of varicose vein and reduce risk of complication effectively and improve their health status.

Introduction *“He who cures a disease may be the skill fullest, but that prevents it is the safest physician”- Thomas Fuller*

Diseases are more common in the world; the person will find out the causes of disease and try to take immediate action to prevent the disease. Immediate awareness is the best way to save the life successfully. The term "varicose" is derived from latin "varix" (pleural varices) meaning bent. Varicose veins are tortuous, distended and bulging vein (varicosities) beneath the skin of the legs. They are most often swollen, gnarled veins that most frequently occur in the legs, ankles and feet Varicose veins, tortuous and dilated veins predominantly affecting the lower limbs, pose significant health concerns globally, particularly among individuals with prolonged standing occupations. Security guards represent a high-risk group for developing varicose veins due to occupational demands. This study aims to evaluate the knowledge levels of security guards about varicose veins and the impact of structured teaching interventions.

Varicose veins are a common problem, affecting up to a third of the western adult population. The varicose vein sufferers the following professions like computer professionals, security guards, traffic police, salesmen working at counters in departmental stores, teachers, nurses, paramedical workers working in various hospital set ups and persons doing desk jobs day in and day out. Most suffer with aching, discomfort, pruritis, and muscle cramps, whilst complications include oedema, eczema, lipodermatosclerosis, ulceration, phlebitis, and bleeding. This is known to have a significant negative effect on patient's quality of life.

Statement of problem

“A study to assess the effectiveness of structured teaching programme on knowledge regarding varicose vein among the security guards of Haridwar university”.

Operational definition:-

Assess- It refers to the way of finding the knowledge of security guards regarding varicose vein at Haridwar university.

Knowledge- The term knowledge refers to the correct response of security guards regarding varicose vein.

Effectiveness- It refers to the extent to which objectives are attained.

Structured teaching programme- It refers to the pre-planned teaching programme which will be given to the security guards regarding varicose vein.

Varicose vein- It refers to the distension and tortuosity of the superficial veins develop due to loss of valvular competence of veins.

H0- There will be no significant differences in the level of knowledge regarding varicose vein among the security guards of Haridwar university with their selected demographic variable at $p<0.05$ level.

H1- There will be a significant association in the level of knowledge regarding varicose vein among security guards of Haridwar university with their selected demographic variables at $p<0.05$ level.

Assumption:-

- Sample subject will have some knowledge regarding varicose vein.
- The responses to the questionnaire will reflect their actual knowledge regarding varicose vein.
- Structured teaching programme will enhance their knowledge regarding varicose vein.

Delimitation:-

It refers to the boundaries of the research study based on the researchers decision of what to include and what to exclude.

- The sample size is limited.
- The sample subject are security guards of Haridwar university, Roorkee, uttarakhand.

The sample subject who are present in the hospital at the time of data collection

Methods Study Design: Quasi-experimental one-group pre-test and post-test design.

Setting: Haridwar university Roorkee, Uttarakhand.

Population: Security guards at Haridwar university Roorkee, Uttarakhand.

Sample Size: 30 security guards selected via purposive sampling.

INCLUSIVE CRITERIA

- Security guards who are working at Haridwar university, Roorkee, uttrakhand.
- Who can understand Hindi.
- Who are willing to participate in the study.
- Who are available at the time of data collection.

EXCLUSIVE CRITERIA

- Who are not willing to participate in the study.
- Those who are not available at the time of data collection

Intervention: A structured teaching programme including PowerPoint presentations, pamphlets, and flipcharts.

DEPENDENT VARIABLES

Variables that change as the independent variable is manipulated by researcher sometimes called the criterion variables.

Present study the dependent variable is knowledge regarding varicose vein among security guards.

INDEPENDENT VARIABLES

Variables that are purposely manipulated or changed by the researcher also called manipulated variables.

RESEARCH APPROACH

A research approach is the procedure of research that encompasses the steps from wide assumption to data collection analysis and interpretation. Hence the quantitative research approach is used in present study.

See Supplemental TABLE-1. Framework for quasi experimental study for additional data...

KEY:

O_1 = pre- test

X = intervention (structured teaching programme)

O_2 = post-test

SCORE INTERPRETATION

Knowledge item score-1 awarded for each correct response and marks 0 for wrong response in all items thus total **30 scores** was allotted under knowledge aspect and to interpret the level of knowledge and the score interpretation as following:-

See Supplemental Table 2. Score interpretation of quasi experiment for additional data

Data Collection: A structured questionnaire with 30 multiple-choice questions was used to assess knowledge levels before and after the intervention.

Data Analysis: Descriptive and inferential statistics, including paired t-tests and chi-square tests, were employed.

RESULTS

- **Demographics:** The majority of participants were male (100%), aged 18-25 years (33.33%), Hindu (86.66%), and had intermediate-level education (60%).

Table 3. Demographic variable distribution in frequency and percentage

- **Pre- and Post-Test Scores:** Pre-test mean knowledge score was 11 (SD=4.066), which significantly improved to 19.93 (SD=4.048) post-intervention ($t = -12.37$, $p < 0.05$)

PRE -TEST SCORE

- **Figure 1:** Graphical Representation of Pre-Test level of knowledge regarding varicose-vein.

See Supplemental Figure 1: Graphical Representation of Pre-Test level of knowledge regarding varicose-vein for additional data

POST -TEST SCORE

- **Figure 2:** Graphical Representation of Post-Test level of knowledge regarding varicose-vein.

See Supplemental Figure 2: Graphical Representation of Post-Test level of knowledge regarding varicose-vein. for additional data

- **Effectiveness of Intervention:** Structured teaching significantly enhanced knowledge regarding varicose veins.

Table 4- Test comparison between pre test and post test it shows that mean difference T-value and p value where p value is less than 0.05.

See Supplemental Table 4- Test comparison between pre test and post test it shows that mean difference T-value and p value where p value is less than 0.05 for additional data

- **Association with Demographic Variables:** No significant association was found between pre-test scores and demographic variables like age, gender, or education.

DISCUSSION

The study revealed a substantial improvement in knowledge levels post-intervention, affirming the effectiveness of structured teaching programmes. This aligns with existing literature emphasizing educational interventions in occupational health settings. However, limitations include a small sample size and single-center study design, which may affect generalizability.

CONCLUSION

The structured teaching programme proved effective in enhancing knowledge about varicose veins among security guards. Regular educational initiatives can mitigate risks and improve health outcomes in high-risk occupational groups.

LIMITATION

- The sample size was limited to 30 only.
- The study was limited to security guards who were working at Haridwar university.

RECOMMENDATIONS

Based on the findings of the study the following recommendation is made.

- A similar study may be conducted on a large sample for wider generalization.
- A study can be conducted among health personnel and staff nurses.
- Health education module, manuals, information booklets, structured teaching programme, pamphlets and self-instructional modules may be developed for the study.
- The quasi experimental study can be conducted on colleges and hospital settings.

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