

A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME IN TERMS OF KNOWLEDGE REGARDING PREVENTION OF VARICOSE VEINS AMONG TRAFFIC POLICE PERSONNEL OF DELHI NCR WITH A VIEW TO DISSEMINATE AN INFORMATION BOOKLET.



Medical Surgical Nursing

MS. Anjali Tyagi M.Sc. Nursing Student

ABSTRACT

A study to assess the Effectiveness of Planned Teaching Programme in terms of Knowledge regarding Prevention of Varicose Veins among Traffic Police Personnel of Delhi NCR with a view to disseminate an Information Booklet. The objectives of the study were to assess the pre-test level of knowledge of Traffic Police Personnel on Prevention of Varicose Veins, to develop and administer Planned Teaching Programme on Prevention of Varicose Veins, to assess the post-test level of knowledge of Traffic Police Personnel on Prevention of Varicose Veins, to compare the pre-test and post-test level of knowledge of Traffic Police Personnel regarding Prevention of Varicose Veins, to evaluate the effectiveness of Planned Teaching Programme on Prevention of Varicose Veins among Traffic Police Personnel by comparison between pre-test and post-test knowledge levels, to determine the association of pre-test level of knowledge of the Traffic Police Personnel regarding Prevention of Varicose Veins with their selected demographic variables, to disseminate Information Booklet on Prevention of Varicose Veins. Pre-experimental One group Pre-test Post-test only research design was used to accomplish the stated objectives in the study. After obtaining the ethical permissions, data collection was done in Traffic Police Headquarter, Delhi. A total of 150 Traffic Police Personnel were selected for the study using convenient sampling technique. Self-structured knowledge questionnaire was used as the data collection tool and planned teaching programme was conducted after the pre-test. The data analysis was done using descriptive and inferential statistics. The pre-test study results showed that 57% Traffic Police Personnel had poor knowledge, whereas, 43% had average knowledge while none of the Traffic Police Personnel had good knowledge regarding Prevention of Varicose Veins. However, after the administration of the planned teaching programme, the post-test knowledge scores presented that 80% Traffic Police Personnel had good knowledge, 17% had average knowledge and only 3% had poor knowledge regarding Prevention of Varicose Veins. There was an association between the knowledge level of the Traffic Police Personnel and the selected demographic variables such as Education and Duration of Duty Hours. Mean pre-test knowledge scores of the sample was lower than the mean post-test knowledge score with a mean difference of 12. The calculated 'Z' value of 23.6 was greater at $p < 0.05$. Hence, the study results concluded that the planned teaching programme was effective in increasing the knowledge of the Traffic Police Personnel regarding Prevention of Varicose Veins.

KEYWORDS

Varicose veins, Traffic Police, Knowledge, Prevention, Teaching Program, Health Education, Public Health.

INTRODUCTION

Health is appertained to the position of functional or metabolic effectiveness of a living being. It is related to life. moment the adding significance is placed on health, health creation, healthiness and self-care. Workers further than millions of people spend most of the working day on their standing for prolonged time and numerous hours in static or same positions. Standing takes up 20% of our energy, indeed further than sitting. This is because our bodies are not meant to stand for long ages of time. Dragged standing can lead to health problems similar as fatigue and dropped focus¹

Presently conditions are more common each over the world due to the changing of life styles. Creating mindfulness is the vogue way to lead life successfully. Varicose Veins are one of the top preventable conditions which are associated with veins. It's a serious complaint, which poses trouble to life of case when effective measures are not taken²

As per the tale report of WHO (2013), Varicose veins affect about 2 of the Western population, with women being 3 to 4 times more likely to develop them than men. The frequency of varicose veins is lower in Eastern populations. In the United States, the frequency is 22 per 1000 people.³

DM Satapathy(2014), the deep and superficial veins get damaged because of prolonged standing. Once the veins is damaged there is a reversal of blood flow from deep to superficial veins. It is generally believed that occupations involving prolonged standing and walking rise venous pressure in the legs for a long period of time and aggravates any inherent tendency to varicose. An analysis of occupation in varicose veins patients has shown that the incidence was greater 67 % in people whose occupations involved prolonged standing and walking.⁴

Being healthy is not a possession; rather, it is a way of living, working, and having fun in one's surroundings. Millions of workers stand for most of the working day and spend many hours in static positions. Because human bodies are not made to stand for extended periods of time, standing requires 20% more energy than sitting. Standing for extended periods of time can cause fatigue, impair focus, and raise health risks⁵

Global data shows that one in two people over 50 have vein problems. Varicose veins affect around 2.7 million people globally, and the

number is growing. Varicose veins are common in three out of ten adults, and while they are usually harmless, they can be unsightly. There are preventive measures that can be taken to avoid varicose veins, and exercises can be done to improve their appearance. Varicose veins are most common in the lower limbs, and if left untreated, they can lead to serious complications. There are different surgical treatments available for varicose veins, but the complications of surgery can be troublesome and difficult to treat.⁶

Methodology

The present study focuses on Traffic Police Personnel working in Delhi NCR, utilizing a non-probability convenient sampling method with a sample size of 150 participants. A customized data collection tool was developed in alignment with the study's objectives and Imogene King's Goal Attainment Theory.

The tool comprises two sections: Section A gathers socio-demographic details such as age, dietary habits, lifestyle practices, education, occupation, income, duty hours, family medical history, and exercise routines; Section B includes a self-administered questionnaire with 30 items (scored 0 or 1; maximum score: 30) to assess knowledge and prevention of varicose veins, covering definitions, risk factors, diagnostics, management, and preventive strategies like diet and exercise. Guided by King's theory, the study considers the traffic personnel as the personal system, the interaction between investigator and participants as the interpersonal system, and their working context as the social system. Key concepts such as perception, communication, interaction, transaction, roles, and decision-making frame the research process—ranging from identifying knowledge gaps to delivering a structured teaching session and evaluating its effectiveness through pre- and post-test assessments. The anticipated outcome is an increase in knowledge, as reflected by improved post-test scores, indicating the intervention's success.

RESULT

Table 1: Findings Related To Knowledge Regarding Prevention Of Varicose Veins Among Traffic Police Personnel. N=150

Level of Knowledge	Range	Pre-Test		Post-Test	
		Frequency	Percentage	Frequency	Percentage
Good Knowledge	21-30	0	0%	120	80%
Average Knowledge	11-20	65	43%	25	17%
Poor Knowledge	0-10	85	57%	5	3%

Maximum Score= 30

Minimum Score=0

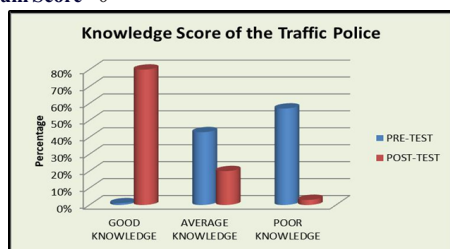


Figure 1: Bar graph depicting prevention distribution of pre-test knowledge scores regarding Prevention of Varicose Veins among Traffic Police Personnel.

Table 2: Effectiveness Of Planned Teaching Programme On The Level Of Traffic Police Personnel On Prevention Of Varicose Veins. N=150

Group	Score Range	Mean	Mean Difference	Median	Standard Deviation	Z' Value	Critical 'Z' value	'p' value
Pre- Test	08-18	12.9	12	10	4.49	23.6	2.0	<0.05*
Post- Test	10-30	24.9		26	4.02			

Maximum score = 30 Minimum score = 0

*Significant $p < 0.05 < \alpha = 0.05$

This section deals with the comparison of pre-test knowledge scores of Traffic Police Personnel regarding Prevention of Varicose Veins by computing the mean, mean difference, standard deviation and 'Z' value.

The study revealed that 40% of traffic police personnel were aged 36–40 years, 37% were 46–50 years, 13% were 41–45 years, and 10% were 30–35 years. A majority (66%) were vegetarians, and 67% reported no bad habits, while 33% consumed alcohol. In terms of education, 53% were graduates, 27% held high school certificates, and 20% had diplomas or intermediate education. Regarding rank, 39% were constables, 27% head constables, 21% sub-inspectors, and 13% inspectors. Most participants (66%) earned between ₹30,000–₹40,000 monthly. In terms of duty hours, 40% stood for 8 hours, 39% for more than 8 hours, and 21% for 6 hours daily. While 73% had no family history of varicose veins, 66% reported regular exercise. In the pre-test, 57% had poor knowledge and 43% had average knowledge; none had good knowledge. Post-intervention, 80% achieved good knowledge, 17% average, and only 3% remained in the poor category. The mean pre-test score was 12.9 (SD = 4.49), while the post-test mean was 24.9 (SD = 4.02), with a mean difference of 12. The calculated Z value of 23.6 was significantly higher than the table value at $p < 0.05$, indicating that the Planned Teaching Programme was effective. Chi-square analysis showed no significant association between knowledge levels and variables such as age, food preference, habits, occupation, income, family history, and regular exercise. However, a significant association was found with education and duration of duty hours. Thus, the research hypothesis H1 was accepted, and null hypothesis H01 rejected, confirming the effectiveness of the intervention, while hypothesis H2 was partially accepted due to limited associations between knowledge and demographic factors.

DISCUSSION

The present study aimed to assess the effectiveness of the Planned Teaching Programme on the knowledge of the Traffic Police Personnel regarding Prevention of Varicose Veins. The findings of the present study has been discussed in relation to the observation made by other studies which the investigator reviewed.

The present study found that the pre-test knowledge on Prevention of Varicose Veins among Traffic Police Personnel showed that 57% have poor pre-test knowledge, whereas 43% were having average pre-test knowledge and none of them are having good pre-test knowledge regarding Prevention of Varicose Veins. Whereas, there was significant association found between knowledge level and the some selected demographic variables such as education, duration of duty hours.

CONCLUSION

The study concluded that the Planned Teaching Programme was highly

effective in enhancing Traffic Police personnel's knowledge about varicose vein prevention. Initially, most participants had poor to average understanding, as reflected in a mean pre-test score significantly lower than the post-test score (mean difference=12), with a Z value of 23.6 (exceeding the critical value of 2.0 at $p < 0.05$). There was no meaningful association between knowledge levels and most demographic factors—such as age, food habits, income, family history, or exercise—but education and duty-hours duration were significantly linked to improvements ($p < 0.05$). Overall, the intervention meaningfully elevated awareness and can be considered a successful educational strategy.

REFERENCES

- Harrison, T.R., Fauci, A.S., Kasper, D.L., Hauser, S.L., Longo, D.L., Jameson, J.L., & Loscalzo, J. Harrison's principles of internal medicine (18th ed.). New York, NY: McGraw-Hill Education 2018.
- Van Voorhees BW. Mayo foundation for Medical Education and Research [Internet] 2007 Jan 22. Available from: <http://www.Medline.com>.
- RecentScientific. [2023, April 25]. Retrieved from <http://www.recentsscientific.com>.
- Satapathy DM, Behera TR, Tripathy RM, Amar A. Health status of traffic police personnel in Brahmaputra city. Indian Journal of community medicine [Internet] 2014. Available from: <https://www.researchgate.net/publication/38054909>.
- Mekky S, Schiling RSF, Walford J. Varicose veins in women cotton workers: an epidemiological study in England and Egypt. British Medical Journal [Internet] 2011. Available from: <https://europepmc.org/article/med/5798468>.
- Beagle-hole R, Prior IA, SALMOND CE, Davidson F. Varicose veins in the South Pacific. International journal of epidemiology. [Internet] 2019 Available from: <https://core.ac.uk/download/pdf/250107751.pdf>