RESEARCH PAPER

Stitching Health Awareness: Effectiveness of Planned Teaching Program on Knowledge of Peripheral Vascular Disease Among Tailors. - A Quasi-Experimental.

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ABSTRACT

Background:
Peripheral Vascular Disease (PVD) is a significant yet often under-recognized health problem, particularly among occupational groups with prolonged sitting or limited mobility, such as tailors. Lack of awareness contributes to delayed diagnosis and complications. Educational interventions can play a vital role in improving knowledge and promoting preventive practices.

Methods:
A quasi-experimental one-group pre-test and post-test design was adopted to assess the effectiveness of a planned teaching program on knowledge regarding PVD among 150 working tailors in the Sangli–Miraj–Kupwad Corporation area. Samples were selected using a simple random sampling technique. A standardized questionnaire was used to assess knowledge. Content validity was established by 15 experts, and reliability was confirmed using the test–retest method (Karl Pearson's coefficient, r = 0.89). Pre-test assessment was followed by the planned teaching intervention, and post-test evaluation was conducted to measure knowledge gain.

Results:
The findings revealed that most participants had inadequate knowledge in the pre-test. Following the planned teaching intervention, there was a significant improvement in post-test knowledge scores. Comparison of pre-test and post-test scores indicated a statistically significant difference, leading to the rejection of the null hypothesis (H0) and acceptance of the research hypothesis (H1).

Conclusion:
The planned teaching program was effective in enhancing knowledge regarding Peripheral Vascular Disease among working tailors. Structured educational interventions can be utilized as a cost-effective strategy to improve awareness and promote early prevention of PVD in occupational groups.

Keywords: Peripheral Vascular Diseases; Health Education; Knowledge; Occupational Health**.**

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INTRODUCTION

Peripheral Vascular Disease (PVD) is a common circulatory disorder characterized by the narrowing or obstruction of blood vessels, particularly in the lower extremities, resulting in reduced blood flow. It is primarily caused by atherosclerosis and is associated with major risk factors such as smoking, diabetes mellitus, hypertension, obesity, physical inactivity, and advancing age. PVD is an important public health concern due to its progressive nature, potential complications such as pain, ulceration, gangrene, and even limb loss, and its strong association with cardiovascular morbidity and mortality. Despite its clinical significance, PVD often remains underdiagnosed and inadequately

managed, especially in developing countries like India.

Occupational factors play a crucial role in the development and progression of PVD. Individuals engaged in sedentary occupations or those involving prolonged sitting, such as tailoring, are particularly vulnerable. Working tailors often maintain static postures for extended periods, leading to impaired blood circulation in the lower limbs. Additionally, lack of awareness regarding vascular health, poor lifestyle habits, and limited access to health education further increase their risk. In urban and semi-urban areas such as the Sangli–Miraj–Kupwad Corporation region, a significant number of individuals are engaged in tailoring as a livelihood, making this group an important target for preventive health interventions.

Knowledge is a key determinant in the prevention and early detection of PVD. Adequate awareness regarding risk factors, early signs and symptoms (such as intermittent claudication, numbness, and cold extremities), and preventive measures (including regular physical activity, smoking cessation, and proper ergonomics) can significantly reduce disease burden. However, studies have indicated that occupational groups like tailors often have limited knowledge regarding non-communicable diseases, including vascular disorders, which highlights the need for structured educational programs.

Planned teaching programs are systematic, organized educational interventions designed to improve knowledge, attitudes, and practices of individuals. Such programs have been widely used in nursing and public health to enhance awareness and bring about positive behavioural changes. By delivering relevant and tailored information in an understandable manner, planned teaching can empower individuals to adopt healthier lifestyles and seek timely medical care.

Considering the increasing burden of non-communicable diseases and the occupational vulnerability of working tailors, it is essential to implement and evaluate effective educational strategies. Therefore, the present study aims to assess the effectiveness of a planned teaching program on knowledge regarding Peripheral Vascular Disease among working tailors in the Sangli–Miraj–Kupwad Corporation area. The findings of this study are expected to contribute to evidence-based nursing practice and support the development of community-based health education programs targeting high-risk occupational groups.

METHODS

Ethical considerations

Permission to conduct the study was obtained from the Research Committee of Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli.

- Administrative approval was secured from the authorities of the selected institutions in the Sangli–Miraj–Kupwad Corporation area.
- Ethical principles were strictly maintained throughout the study.
- Written informed consent was obtained from all participants prior to data collection.
- Participants were informed about the purpose, procedures, and voluntary nature of the study.
- Confidentiality and anonymity of the participants were ensured.
- Participants were given the right to withdraw from the study at any time without any penalty

STUDY DESIGN

A quasi-experimental one-group pre-test and post-test design was adopted to assess the effectiveness of a planned teaching program on knowledge regarding PVD among 150 working tailors in the Sangli–Miraj–Kupwad Corporation area. Samples were selected using a simple random sampling technique. A standardized questionnaire was used to assess knowledge. Content validity was established by 15 experts, and reliability was confirmed using the test–retest method (Karl Pearson's coefficient, r = 0.89). Pre-test assessment was followed by the planned teaching intervention, and post-test evaluation was conducted to measure knowledge gain.

PROCEDURE

- Prior to data collection, formal permission was obtained from the Research Committee of Bharati Vidyapeeth (Deemed to be University) College of Nursing, Sangli and the concerned authorities of the selected areas in the Sangli–Miraj–Kupwad Corporation region.

- The data collection period was planned and scheduled according to the convenience of the participants.
- A total of 150 working tailors were selected using a simple random sampling technique based on the inclusion criteria.
- The researcher established rapport with the participants and explained the purpose and objectives of the study.
- Written informed consent was obtained from each participant before initiating the study.
- A pre-test was conducted using a standardized structured questionnaire to assess the existing knowledge regarding Peripheral Vascular Disease (PVD).
- Following the pre-test, a planned teaching program on Peripheral Vascular Disease was administered to the participants using appropriate teaching methods and aids.
- After a specified interval (e.g., 7 days), a post-test was conducted using the same questionnaire to evaluate the effectiveness of the planned teaching program.
- The collected data were systematically organized and recorded for further analysis.
- Confidentiality and anonymity of the participants were maintained throughout the data collection process

RESULTS

SECTION 1: Frequency and percentage distribution of working tailors according to demographic variables.
n-150

Sr. No.	Demographic variables		Frequency	Percentage %
1.	Age (in years)	20 – 30	53	35.34%
		31 – 40	61	40.66%
		Above 41	36	24%
2.	Gender	Male	98	65.33%
		Female	52	33.66%
3.	Educational status	No formal education	0	0%
		Primary education	37	24.66%
		Secondary education	76	50.66%
		Graduation	34	22.66%
4.	Habits	Smoking	20	13.33%
		Alcohol	89	59.33%
		Tobacco	41	27.33%
5.	Diet	Vegetarian	53	35.33%
		Non-vegetarian	97	64.66%
6.	Duration of work	8 hr.	90	60%
		6 hr.	60	40%

Table 1. Shows that the study participants (n = 150) were predominantly aged 31–40 years (40.66%), followed by 20–30 years (35.34%). Most were male (65.33%). Over half had secondary education (50.66%), with no participants lacking formal education. Alcohol use was highly prevalent (59.33%), followed by tobacco (27.33%) and smoking (13.33%). A majority were non-vegetarian (64.66%). Most participants (60%) worked 8 hours daily, indicating standard to longer working duration.

Level of knowledge	PRE-TEST		POST-TEST	
	Frequency	Percentage %	Frequency	Percentage %
Poor knowledge (1-9)	132	88%	14	9.34%
Average knowledge (10-18)	18	12%	98	65.33 %
Good knowledge (19-27)	0	0%	38	25.33 %

SECTION-II: Frequency and percentage distribution of working tailors according to pre-test score and post-test knowledge score regarding peripheral vascular disease.

n= 150

Table 2. The findings show a marked improvement in knowledge after the intervention. In the pre-test, most participants (88%) had poor knowledge, with none demonstrating good knowledge. In contrast, the post-test results revealed a substantial reduction in poor knowledge (9.34%) and a significant increase in average (65.33%) and good knowledge levels (25.33%). This indicates the effectiveness of the intervention in enhancing participants' knowledge

SECTION III: Comparison between the pre-test score and post-test knowledge score regarding peripheral vascular disease among working tailors n=150

ASPECTS	MEAN	S.D.	D.F	Paired T-test	P-value	CONCLUSION
Pre-test	9.31	2.08	149	30.35	0.0001	Significant
Post-test	17.54	1.57				

Table3- The comparison of pre-test and post-test scores shows a significant improvement in knowledge. The mean score increased from 9.31 (SD = 2.08) in the pre-test to 17.54 (SD = 1.57) in the post-test. The paired t-test value (t = 30.35, df = 149) with a p-value of 0.0001 indicates a highly statistically significant difference. This confirms that the intervention was effective in improving participants' knowledge

DISCUSSION

The present study evaluated the effectiveness of a planned teaching programme on knowledge regarding Peripheral Vascular Disease among working tailors in the Sangli–Miraj–Kupwad corporation area. Baseline findings revealed that most participants had inadequate knowledge, as reflected by a low pre-test mean score (9.31). This highlights a clear knowledge gap, likely due to limited awareness and occupational factors such as prolonged sitting and lack of health education.

Following the implementation of the planned teaching programme, there was a substantial improvement in knowledge, with the post-test mean score rising to 17.54. The statistically significant difference between pre- and post-test scores confirms the effectiveness of the intervention. Additionally, participants' positive feedback suggests that the teaching programme was understandable, relevant, and helpful in clarifying their doubts.

These findings emphasize the importance of structured educational interventions in improving awareness of peripheral vascular disease among high-risk occupational groups like tailors. The study supports the need for similar programmes on a larger scale to promote early prevention and reduce disease burden

LIMITATIONS

- The study was conducted on a limited sample size (N = 150), which may restrict the generalizability of the findings.
- The study used a pre-experimental (one-group pre-test post-test) design without a control group, making it difficult to attribute changes solely to the intervention.
- Data were collected using a structured questionnaire, which may be subject to response bias or guessing.
- The study assessed only short-term knowledge gain, with no follow-up to evaluate long-term retention of knowledge.
- Behavioural changes and clinical outcomes related to Peripheral Vascular Disease were not measured.
- External factors such as participants' prior exposure to information or peer discussion during the study could not be controlled.

CONCLUSION

- The study revealed that working tailors had **i**nadequate baseline knowledge regarding Peripheral Vascular Disease.

 The pre-test mean score (9.31) indicated poor understanding of the condition.
 The planned teaching programme was effectively implemented among the participants.
 There was a significant improvement in knowledge, as shown by the increased post-test mean score (17.54).
 Statistical analysis confirmed that the improvement was highly significant, proving the effectiveness of the intervention.
 Participants provided positive feedback, indicating better clarity and understanding after the teaching session.
 The study concludes that structured educational programmes are effective in improving knowledge among working tailors.
 There is a need for regular awareness programmes to promote early prevention and management of peripheral vascular disease.

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AUTHOR CONTRIBUTIONS

 Miss. Megha Nikam, Mr. Pranav Kadam, Mr. Parvej Mulani
Conceptualization; Methodology; Investigation; Data Curation; Formal Analysis; Writing – Original Draft; Visualization.
 Guide (Mrs Swati C Kurane)
Supervision; Validation; Writing – Review & Editing; Methodology; Project Administration.

DISCLOSURE STATEMENT

The authors declare that there are **no conflicts of interest** related to this study on Peripheral Vascular Disease.

The authors confirm that the study was conducted in accordance with **ethical standards**, and necessary permissions were obtained from the institutional authorities prior to data collection.

All data presented in this study are **original**, and the manuscript has not been published or submitted for publication elsewhere.

The authors take full responsibility for the **integrity, accuracy, and authenticity** of the data and findings reported in this study.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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