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"A Study to Assess the Knowledge Regarding Deep Vein Thrombosis Among Petrol Pump Workers in Selected Areas of Pune City".

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Abstract

Introduction: Deep Vein Coagulation is a disorder where a blood clot is formed interior to a deep vein in the body typically at lower extremity. This deep leg vein is one of the larger veins which circulates inside the calf muscles and thigh muscles where occlusion generally occurs. This is one of the most dangerous disease among the patient and it also affects the hospitalized patients too.

Title: A study to assess the knowledge regarding deep vein thrombosis among petrol pump workers in selected areas of Pune city".

Purpose of study: To evaluate knowledge levels a deep veins thrombosis amongst petrol pump workers. Associate the findings with demographic variables.

Material and method: The study was initiated after receiving approval from institutional Ethics Committee. One hundred petrol pump workers were enrolled in the study to assess their knowledge regarding deep vein thrombosis. Quantitative research approach was adopted for this study and research design was non-experimental. Non-purposive sampling methods were used for to recruit study participants. Demographic and knowledge tool were used to collect data and record study variables. The data was recorded in pre-designed excel sheets and proper statistical measures were used to analyze data. The association of the demographic variables with the knowledge score was considered significant at 0.05 level and below.

Result: The demographic variables revealed that the majority of the participants though poorly educated or underqualified had good and average knowledge score of DVT. The p-value for the demographic variable is greater than 0.05 for age, gender, working hours, food pattern with knowledge. This shows there was no association with any of the demographic variables. Conclusion: The study concludes that educational status did not affect the knowledge score of the Deep Vein Thrombosis. However, attitude and knowledge of Deep Vein Thrombosis needs to be monitored in this population setting.

Key Words: Knowledge, Deep vein thrombosis, Petrol pump workers

Introduction

Deep Vein Coagulation is a disorder where a blood clot is formed interior to a deep vein in the body typically at lower extremity. Synonymous name of this is Venous thrombosis where blood clots formed in a vein. It can also be formed in stomach or pelvis. This deep leg vein is one of the larger veins which circulates inside the calf muscles and thigh muscles where occlusion generally occurs.

Leg pain and swelling are also possible side effects and complications usually like this may result about one by one thousand adults experience this condition annually. This is one of the Major healthcare problems worldwide. Post forty-five years of age, the occurrence speed start to shoot rapidly, and men's rate of onset is slightly greater as compared to women. Along with age, numerous external factors like idleness, hospitalization, surgery, shock,

Puerperium, pregnancy, hormone use, etc. also poses major risk factor for occlusion. Endogenic risks factors involve overweightness, malignancy, various disorders. Venous blockage, including blood clot and respiratory intercalation, has an occurrence of about one per one thousand adults on annual basis. In United States on an average three lakhs death occurs due to this associated massive pulmonic embolism. This is one of the major healthcare problems worldwide.

This involves predominantly the veins of the lower limbs. After a clot develops in one of the larger veins, it can meddle with the circulation. The risk arises if the clot breaks off and circulates through the bloodstreams, into vital organs like lungs, brain, heart, or other area, which can cause life-threatening injury to that tissue or possibly death from a stroke. Deep vein thrombosis is one of the most severe and life-threatening vascular diseases among patients. After cardiac arrest and stroke, it is deemed to be the third major vascular diagnosis. This is one of the vascular disorders that affect both the ambulatory patients as well as hospitalized one.

Need of the Study

In this presence of blood clot in one or more deep vein of the body most in the leg. In maximum instances the disorder remains undiagnosed and estimated as a silent killer. It is one of the top three primary causes of mortality among adults. The long-lasting complications arise due to deep vein obstruction are post-thrombotic condition and its recurrence. Socially and economically, this poses a substantial burden on the patients.

Workers primarily in industries whose jobs is to remain in a stationary position for a prolonged period, like standing or sitting at the counters are at greater risk. This includes healthcare staff, pantry staff and anybody who work extended shift with no change in position or taking enough pauses are at the risk for this.

The warning signs and symptoms do not appear suddenly, and it may include tenderness in the concerned leg which sometimes can experience like a strained muscle (at time very acute), inflammation in the leg. Staining that can appear red, purple, or blue. Numbness, itchiness, or warmness near the affected area, travelling symptoms, symptoms moving from one part of the leg to other, pain in chest, coughing, Nausea, amplified heart rate, abrupt shortness of breath.

One of the research depicts that the knowledge level in pre intervention, out of thirty-Five samples, ninety-four-point twenty nine percent were inadequate, five-point seventy one percent were moderately adequate and nobody in adequate levels of knowledge. However, post intervention the results improved, and nobody were in unsatisfactory level, forty-two-point seventy six percent were moderate adequate and fifty-seven-point fourteen percent were adequate levels of knowledge.

Numerous studies revealed that insufficient information is the main factor for risks and poor methods adopted for its prevention. Studies have also implied that low self-efficacy and conducts contribute to refining the quality of that patient care. Enhancing the knowledge and upgrading the procedures on that risks and prevention to get around complications are crucial; it might also help upgrade understanding and avert this essential public health problem.

Thus, above mentioned facts show a varicose vein is everywhere. The similarly situation is in petrol pump workers too but not taking consideration properly.

Aim of the Study

To give the knowledge regarding Deep vein thrombosis.

Method and Material

The Study was initiated after receiving approval from institutional ethics committee one hundred petrol pump workers were enrolled in the study to assess their knowledge among DVT. The study was descriptive in design and non-probability purposive sampling method were used to recruit study participants. The reliability of self structured knowledge questionnaire was calculated by test retest method using Karl Pearson correlation coefficient

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method. The reliability using Karl Pearson method was found to be 0.796 which is greater than 0.70 thus the tool was found to be reliable. Pilot study revealed that it was feasible to conduct main study. Demographic and knowledge tool were used to collect data and record study variables. The data was recorded in an pre-designed Excel sheets and proper statistic measure were used to analyze data. The association of the demographic variables with the knowledge score was considered significant at 0.05 level and below.

Result

ORGANIZATION AND PRESENTATION OF DATA

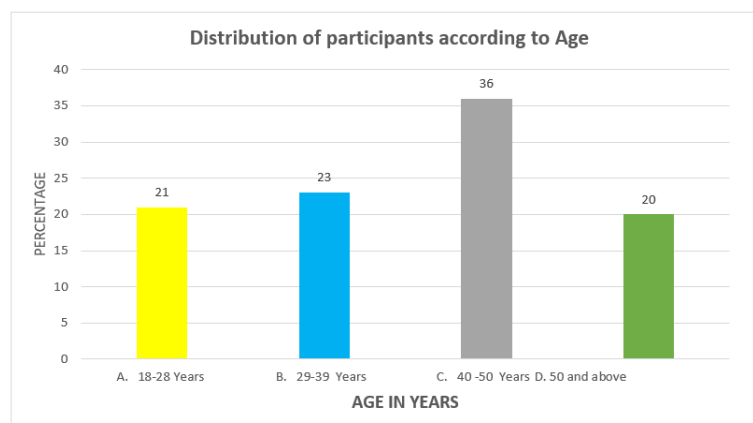Section I: Analysis of data related to Demographic variables.

Section II: Analysis of data related self structured knowledge questionnaire.

Section III: Analysis of data related to the association of the knowledge findings with demographic variables.

Section I: Demographic variables of the study population.

Study represents that in age 20 percentage participants were 50 years and above 21 percentage 18 –28 years 23 percentage were from 29 – 39 years and 36 percentage were from 40 – 50 years respectively
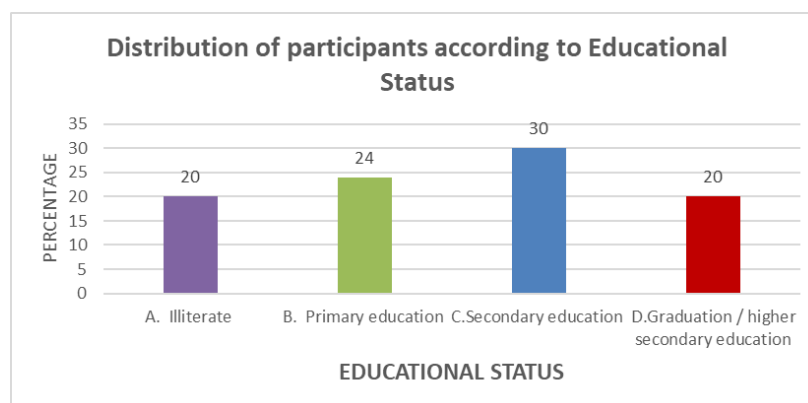
n=100

In gender 52 percentage participants were male and 48 percentage were female

In educational status 20 percentage participants were each illiterate and having graduation higher secondary education 24 percentage were having primary education 30 percentage having secondary education
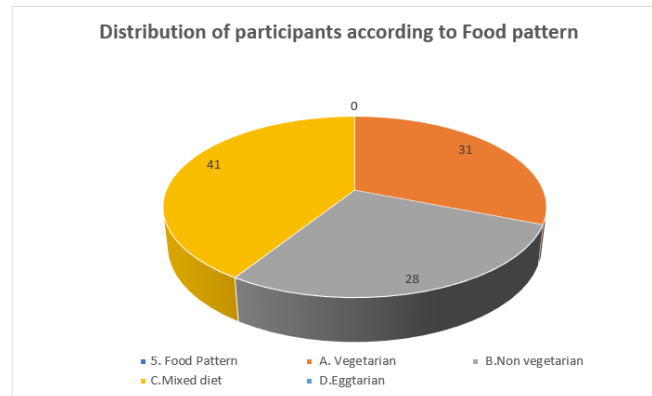
n=100

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In working hours 8 percentage were working 12 hours 22 percentage for 10 hours and 70 percentage were working 6 hours

In food pattern 28 percentage where non vegetarian 31 percentage were vegetarian 41 percentage were having mixed diet.

n=100

Section II   Findings related to level of knowledge regarding deep vein thrombosis among petrol pump workers in selected area of Pune City.
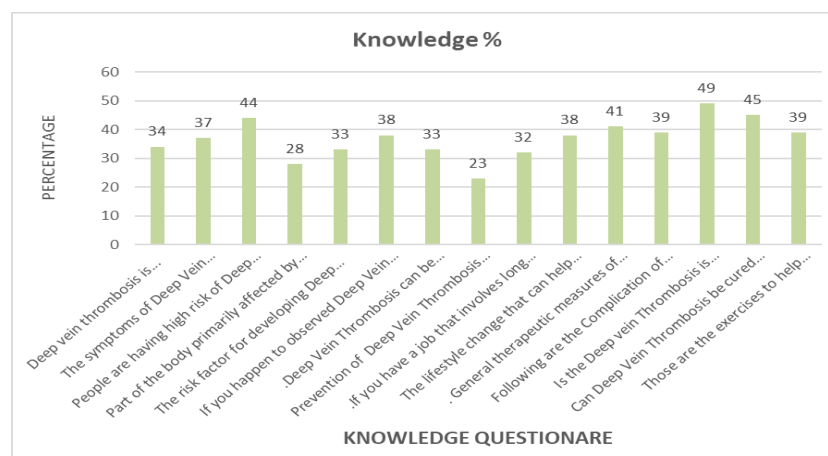
n=100

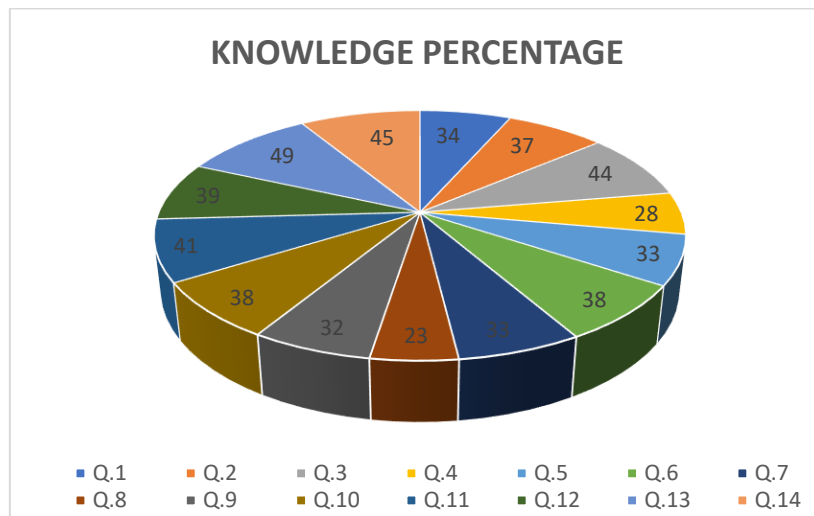| Level of information	F	%	mean	SD
poor (0 –5)	61	61	5.5	2.61
Average (6 – 10)	32	32		
Good (11 - 15)	7	7		

Table 02 equate 61 percentage were having poor knowledge 32 percentage were having average knowledge 7 percentage were having good knowledge

The overall mean is 5.5 + 2.61.

Section III: Finding related to knowledge questionnaire responses of deep vein thrombosis among petrol pump workers

n=100

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n=100

Summary

In this fourth chapter the analysis and interpretation of data was owing opinion dismantle 100 sample enhanced data cluster concluded self structured demographic questionnaires in regard to indulge the highest responses 49 percentage was given for is deep vein thrombosis is communicable disease and 23 percentage of responses was received from prevention of deep vein thrombosis. far 61 percentage poor knowledge, 32 percentage average, 7 percentage good knowledge. The corollary flash no association with knowledge regarding deep vein thrombosis.

Discussion

The data reveal the major findings about demographic variables of 100 sample. The finding of the study was discussed with objectives and assumption state the present study was undertaken to assess the knowledge regarding deep vein thrombosis among petrol pump workers in selected area of Pune city. The current study is corroborated by a comparable cross-sectional study that was conducted at the medical college hospital in Mangalore. The study objective was to evaluate bedridden patient knowledge and practice regarding the prevention of deep vein thrombosis. Ninety-five people took part in the study 61 percentage were above the age of 47 and most of them were men 72 percent. Sixty two percent of the respondents worked physically and forty one percent had completed elementary school. The result showed that forty two percent of had moderate knowledge fifty eight percent of subject had insufficient understanding about how to prevent it. Remarkably not a single respondent showed sufficient expertise. In term of practice 66 percent reported moderate practice 12 percent reported high practice and 22 percent reported low practice. The mean knowledge score was 11.4 and mean score for practice was 9.85. There was a positive correlation between knowledge and practice. Among bedridden patients demographic factors had no discernible impact on knowledge or practice scores.

Conclusion

Based on the findings of present study the following conclusions were drawn, Quantitative data collected from petrol pump workers by Non-Probability Purposive Sampling Technique and in accordance to the sample selection criteria. The sample size for this study was 100. To obtain required data for the study, the tool was developed and used for data collection. The demographic characteristics were analyzed by using frequency and percentage. Chi Square test was used to find out association between demographic variables and knowledge regarding DVT. Educational status did not affect the knowledge score of the Deep Vein Thrombosis however attitude and knowledge of Deep Vein Thrombosis needs to be monitored in this population setting a statistically there is significant association was not found with knowledge with the demographic variables of petrol pump workers with Deep Vein Thrombosis. More emphasis should be given for health education to create awareness about deep

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vein thrombosis in the community by the health care professionals. Although the 61 percentage were having poor knowledge,32 percentage were having average knowledge, 7 percentage were having good knowledge. The overall mean is 5.5+2.61.

Conflict of interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials or materials discussed in this paper.

References:

[1] Maryam Yaseri, et.al (2023) ,Prevalence of deep vein thrombosis and associated risk factors among patients with COVID-19 in the North of Iran. Future Virology , Volume 18.

[2] Permpikul, C., Chaiyasoot, W. & Panitchote, A. Incidence of proximal deep vein thrombosis in medical critical care patients. Thrombosis J 20, 5 (2022).

[3] Report of task force directorate general of health services 2022 – govt. of india - task force series no. 01 venous thrombo embolism.

[4] Khalpanaah A/P Rangasamy, Mohd Radzi, J., & Mohd Nasir, F. (2020). Prevalence of Deep Venous Thrombosis Among Outpatients in University Malaya Medical Center (UMMC) Malaysia . Asian Journal of Medicine and Biomedicine, 4(SI1), 52-58. https://doi.org/10.37231/ajmb.2020.4.SI 1.401

[5] Mugeni R, Nkusi E, Rutaganda E, et al, Proximal deep vein thrombosis among hospitalised medical and obstetric patients in Rwandan university teaching hospitals: prevalence and associated risk factors: a cross-sectional study.

[6] Eman Saleh M Shahin, et.al (2017), Incidence and Prevalence of Deep Venous Thrombosis in Surgical Patients. IOSR Journal of Nursing and Health Science (IOSR-JNHS) e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 6, Issue 5 Ver. IV. (Sep. -Oct .2017), PP 21-26.

[7] Nurhusien Nuru Yesuf, et.al Nurses knowledge and practice towards prevention on deep vein thrombosis in University of Gondar Comprehensive Specialized Hospital, northwest Ethiopia, International Journal of Africa Nursing Sciences.

[8] James, Ann & George, Fiona & Graceviolet, & Sebastian, Jomol & Bharath, Prashma. (2021). A Study to Assess the Knowledge and Practice Regarding Prevention of Deep Vein Thrombosis among Bedridden Patients in a Selected Hospital, Mangalore. Indian Journal of Forensic Medicine and Toxicology.

[9] Diksha, Jasvinder Kaur Saini, Libin Joseph. Effectiveness of educational interventional programme on knowledge regarding deep vein thrombosis among staff nurses.

[10] Ms. Rohini Sharma, et. al. "Knowledge of nurses regarding deep vein thrombosis and its prevention among patients admitted in the hospital." IOSR Journal of Nursing and Health Science.