Nurses' Knowledge and Attitudes Toward Deep Vein Thrombosis: A Cross-Sectional Study

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ABSTRACT

Aim: To ascertain the relationship between the nurses' socio-demographic data (age, gender, level of education, place of employment, and years of experience) and their knowledge about and attitudes toward deep vein thrombosis.

Methods: An analysis of the attitudes and information of nurses regarding deep vein thrombosis that is descriptive (cross-sectional). The study was carried out in Al-Basrah's teaching hospitals. The study period's beginning date was changed from August 1st, 2022, to March 1st, 2023. a non-probability (purposive) sample of 100 nurses. A pilot study involved ten nurses who worked at Al-Basrah Teaching Hospital between September 6 and September 21. Data were acquired through developing the questionnaire. When analyzing descriptive data, the mean of the score, the standard deviation (SD), and the frequency are all taken into consideration.

Findings: Just 2% of nurses had good awareness of deep vein thrombosis, while 22% of nurses had intermediate knowledge and 76% had inadequate knowledge of the condition. The study's findings also revealed that (83%) of nurses have negative attitudes of deep vein thrombosis, (13%) have moderate understanding, and (4%), have positive attitudes.

Conclusion: The current study found that nurses' attitudes and knowledge of deep vein thrombosis were low.

Keywords: Nurses, Knowledge, Attitudes, Deep Vein Thrombosis

INTRODUCTION

Patients frequently get deep vein thrombosis, which can have disastrous effects. In order to reduce problems, nurses' knowledge and knowledge of DVT dangers and prophylaxis must be improved. According to the World Health Organization (WHO), non-communicable disease mortality is increasing globally, with emerging nations accounting for up to 80% of these fatalities. After heart attack and stroke, venous thromboembolism (VTE) is the third most common vascular diagnosis. Obesity and metabolic disorders including diabetes mellitus, all of which increase the risk of having DVT/VTE, are on the rise[1]. Due to its close association with a number of leading causes of death, including as heart disease, type 2 diabetes, and several malignancies[2], obesity is a global health concern. Extreme obesity can be successfully treated with bariatric surgery, which results in sustained weight loss over time, an improvement in quality of life, and increased longevity[3]. It also reduces and reverses a number of obesity-related comorbidities. One of the most dangerous postoperative complications of TKA is deep vein thrombosis (DVT), which can result in pulmonary embolism (PE) and death[4-7]. In comparison to total hip arthroplasty (THA), TKA is linked to a higher risk of DVT[8,9]. Numerous studies[10,11] have shown the connection between the state of inflammation and hypercoagulability. The past ten years have seen a lot of research on inflammatory markers that are predictive in the diagnosis of post-TKA DVT[12-14].One of the better researched inflammatory markers for predicting problems with TKA is interleukin-6 (IL-6), which has been compared to C-reactive protein (CRP)[15-19]. Deep vein thrombosis is a common and fatal disorder that can be avoided and managed, and as a result, the mortality and morbidity rates of patients increase[20]. Deep vein thrombosis (DVT) and pulmonary embolism (PE) are both components of VTE, which has affected more than 900,000 people in the USA. Each year, between 60,000 and 100,000 of these people pass away from VTE[21,22].Deep vein thrombosis, which is the third most common cardiovascular condition after myocardial infarction and stroke with a recurrence rate of 26.4% of cases, is a serious public health issue. This raises the expense of patient care and the burden on hospitals[23]. Between 3% and 28% more people have DVT in Asia than there were ten years ago. In the past 30 years, the prevalence of VTE has nearly increased by six, especially as an orthopedic surgery complication[24-26].Distal DVT may return or spread to the proximal veins, especially if untreated, which raises the possibility of complications including PE and PTS. Even though it is uncommon, symptomatic PE may manifest as a right heart overload, tachycardia, discomfort on inspiration, and shortness of breath as a side effect of isolated distal DVT. It may cause circulatory collapse and death if left untreated. People with isolated DVT had a lower yearly rate of VTE recurrence after anticoagulation than those with proximal DVT, but a comparable risk of PE recurrence[27].

INSTRUMENT AND METHODS

An examination of nurses' attitudes toward and knowledge of deep vein thrombosis in a cross-sectional descriptive research. "Al-Zubair Hospital, Al-Mawani Teaching Hospital, Al-Basrah Teaching Hospital, Al-Sader Teaching Hospital, and Al-Faiha Teaching Hospital were the Al-Basrah Teaching Hospitals" where the study was conducted. The start of the study period was moved from August 1, 2022, to March 1, 2023. a 100-nurse non-probability (purposive) sample. Ten nurses who worked at Al-Basrah Teaching Hospital from September 6 to September 21 were the subjects of pilot research. Data were

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gathered using the created questionnaire. Three sections make up the questionnaire: the first section covers sociodemographic information (age, gender, education level, working unit, and experience). A questionnaire with 26 questions about nurses' understanding of deep vein thrombosis makes up the second section. The survey's last portion includes seven inquiries about nurses' opinions on deep vein thrombosis. A panel of thirteen professionals evaluated the content of the tool for validity. On the basis of Cronbach's Alpha, the reliability of the questionnaire is assessed. The (SPSS ver26) was used to examine the data. Included in the study of descriptive data are the mean of score, standard deviation (SD), and frequency. A chi-square is a tool used in inferential data analysis. Each question in the second part consisted of two choices (True and False) and scored as (1 for a True answer and 0 for a False answer). By determining the cutoff threshold for the mean of the scores, the level of assessment for the second part's Knowledge scales was calculated and scored as follows: The researcher came up with the following numbers: (0-0.33) for poor Knowledge, (0.34-0.67) for moderate Knowledge, and (0.68-1) for good Knowledge. The Al-Basrah Health Director has obtained written official permissions to facilitate the data collection. Thirteen experts from College of Nursing/ University of Basrah selected to review the questionnaire.

RESULTS

Table 1: The study sample's sociodemographic information

Characteristic	Classes	F	Percentage
Age	20 – 29	41	41%
	30– 39	18	18%
	40 – 49	24	24%
	50 and above	17	17%
Gender	Male	36	36%
	Female	64	64%
Education Level	Diploma	83	83%
	Bachelor's	17	17%
	Master's	0	0%
	Total	100	100%
Working unit	Surgical unit	53	53%
	Medical unit	47	47%
	Total	100	100%
Experience	<5 Years	36	36%
	5-10 Years	31	31%
	>10 Years	33	33%

Table 2: Nurses' Knowledge Regarding Deep Vein Thrombosis

Classification	Frequency	Percentage	Mean of Score	SD	Assessment
Poor	76	76 %	0.25	0.428	Poor
Moderate	22	22 %			
Good	2	2 %			
Total	100	100 %			

SD: standard deviation

Table 3: Nurses' Attitudes Regarding Deep Vein Thrombosis

Classification	Frequency	Percentage	Mean of Score	SD	Assessment
Poor	83	83 %	0.27	0.423	Poor
Moderate	13	13 %			
Good	4	4 %			
Total	50	100 %			

SD: standard deviation

DISCUSSION

The study's findings indicate that the nurses' average age was between 20 and 29 years old, with a percentage (41%) of age being above 40. These outcomes supported According to the findings of a descriptive design study done at Al-Hilla Teaching Hospital by[28], 83.0% of the sample was between the ages of 20 and 29. According to the current study's findings, women made up 64% of the nursing staff. The non-experimental descriptive design's findings that (90%) of nurses were female are supported by these findings[29].The majority of nurses with diplomas (83%) graduated with a percentage, according to the study's findings. The results of the current study are consistent with those of a quasi-experimental study done by[30], which discovered that 60% of nurses have diploma degrees. According to the study's results, 36% of nurses have less than five years of experience. These findings are consistent with the survey, which revealed that 43.37% of nurses had experience of between one and five years, whereas 30% had experience of more than a year and 53% had more. The results of the current investigation also showed that, compared to the (31) stated figure of 58%, 53% of nurses were working in the surgical unit. According to the investigation's findings, 76% of nurses don't know enough about deep vein thrombosis. Researchers think that many factors contribute to most nurses' lack of knowledge about deep vein thrombosis, including the fact that most of them have diplomas, that they didn't study the condition enough, that there aren't enough training programs for it, and that most of them don't actively pursue their education in the field. These results support the findings of a cross-sectional study by[31], research discovered that most nurses know very little about the causes of DVT. These results refute those who[1] asserted that nurses were highly knowledgeable about deep vein thrombosis. According to the study's findings, 83% of nurses had negative attitudes concerning deep vein thrombosis. A study[32-36] that claimed that most nurses have positive attitudes towards deep vein thrombosis was at odds with the findings of the current investigation. The findings of this study showed a strong relationship between nurses' level of education and skill. These results corroborated a study[37] that discovered a strong relationship between nurses' expertise and level of education. The study's conclusions indicate that a nurse's level of knowledge is unrelated to their gender or number of years of experience. These conclusions were supported by a study[38-40] that discovered no connection between nurses' knowledge and their (gender and experience). The results of the current study also demonstrated that there are no significant differences in nurses' expertise based on their age or working unit. These results confirm the assertions made by those[41] who asserted that there are no discernible differences in nurses' knowledge based on their (age and working unit). The results of this study showed a strong relationship between nurses' attitudes and level of education[42-47].

CONCLUSION

1. The amount of education of nurses and their knowledge and attitudes are significantly correlated.

2. Age, gender, working unit, and years of experience of nurses do not significantly affect their knowledge and attitudes.

RECOMMENDATIONS

1.Provide nurse education courses to help them learn more about deep vein thrombosis.

2. Offering nurses education programs to help them gain more insight into deep vein thrombosis.

3. Providing booklets for nurses related to deep vein thrombosis.

4. Due to a lack of studies on deep vein thrombosis in Iraq, the researcher suggested more research.

Table 4: Relationship between Socio-Demographic Characteristics of Nurses' Knowledge toward Deep Vein Thrombosis

Socio-Demographic Characteristics	Classes	Knowledge			Significant
		Poor	Moderate	Good	
Age	20 – 29	28	12	1	Chi-square= 11.717
	30– 39	16	2	0	Df= 6
	40 – 49	22	1	1	P-value= 0.069
	50 and above	10	7	0	NS
Gender	Male	30	6	0	Chi-square= 2.250
	Female	46	16	2	Df= 2 P-value= 0.325 NS
Education Level	Diploma	73	8	2	Chi-square= 43.498
	Bachelor's	3	14	0	Df= 2
	Master's	0	0	0	P-value= 0.000 HS
Working unit	Surgical unit	41	12	0	Chi-square= 2.304
	Medical unit	35	10	2	Df= 2 P-value= 0.316 NS
Experience	<5 Years	27	8	1	Chi-square= 2.238
	5-10 Years	26	5	0	Df= 4
	>10 Years	23	9	1	P-value= 0.692 NS

"df: Degree of freedom, NS: Not Significant, HS: High Significant"

Table 5: Association between Socio-Demographic characteristics of Nurses' Attitudes toward Deep Vein Thrombosis

Socio-Demographic Characteristics	Classes	Attitudes			Significant
		Poor	Moderate	Good	
Age	20 – 29	30	9	2	Chi-square= 9.148
	30– 39	16	2	0	Df= 6
	40 – 49	22	0	2	P-value= 0.165
	50 and above	15	2	0	NS
Gender	Male	30	4	2	Chi-square= 0.495
	Female	53	9	2	Df= 2 P-value= 0.781 NS
Level of Education	Diploma	79	2	2	Chi-square= 53.937
	Bachelor's degree	4	11	2	Df= 2
	Master's degree	0	0	0	P-value= 0.000 HS
Working unit	Surgical unit	47	5	1	Chi-square= 2.800
	Medical unit	36	8	3	Df= 2 P-value= 0.247 NS
Experience	<5 Y	29	5	2	Chi-square= 2.494
	5-10 Y	26	5	0	Df= 4
	>10 Y	28	3	2	P-value= 0.646 NS

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