EFFECTIVENESS OF SELF-INSTRUCTIONAL MODULE ON KNOWLEDGE REGARDING PREVENTION OF VARICOSE VEINS AMONG ANTENATAL MOTHERS IN SELECTED HOSPITALS

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ABSTRACT

There are many reasons for the development of varicose veins during pregnancy. The principal cause is the hormonal changes that occur during pregnancy. Increased levels of the hormone, progesterone cause blood vessels to relax. This may allow the two halves of the valves in the vein to separate slightly, thus disrupting their function of preventing the backflow of blood. Secondly, the growing uterus puts pressure on the pelvic veins and on the inferior vena cava. This increases blood pressure in the leg veins, which then tend to be prone to varicose. With the growth of the baby, the uterus enlarges and the veins become even more prominent. Hereditary factors also influence the condition. A family history of varicose veins leads to a greater possibility of contracting the condition. Lastly, women with excessive weight show a higher incidence of varicose veins.

Djordje RADAK, Slobodan Tanaskovic (2019) Conducted study on Prevention and treatment of venous disorder during pregnancy and postpartum period Chronic venous disease represents one of the most frequent medical conditions that could be observed in the general population. Pregnancy is one of the major predisposing factors for developing venous insufficiency due to an enlarged gravid uterus, which obstructs pelvic venous outflow, and an increase in hormone secretion, which weakens the vein wall. A clinical examination and Doppler ultrasound evaluation are used to diagnose venous insufficiency during pregnancy; these clinical findings can vary from insignificant telangiectases to severe varicose veins and skin damage. The relative risk of a venous thromboembolism (VTE) is increased by approximately 4 to 6 fold during pregnancy, and this risk is increased further during the postpartum period. In the first trimester, many fatal antenatal VTE events could occur; therefore, early prophylaxis for women with a previous VTE is necessary. In woman with a previous VTE, thromboprophylaxis should begin as early during pregnancy as practical, while women without a previous VTE, but with other risk factors, can start antenatal prophylaxis at 28 weeks of gestation. This article reviews and discusses the current guidelines for the diagnosis and treatment of chronic venous insufficiency during pregnancy and the prevention of a VTE. This article also discusses the current role of low molecular- weight heparin, warfarin, venotonic agents, and compression stockings in preventing a VTE and treating venous insufficiency during pregnancy.

Key Words: Assess, Effectiveness, Knowledge, Self-Instructional Module, Prevention, Varicose vein

I. INTRODUCTION:

"Before you were conceived I wanted you. Before you were born I loved you. Before you were here an hour I would die for you. This is the miracle of love."

- Maureen Hawkins.1 In spite of India's reputation for respecting women, to an extent to treating woman as a goddess, history tells us that women were ill-treated or neglected in various spheres of life across religions, regions, and communities. Except for a few revolutionary movements, the situation remained more or less the same in the ancient, middle age and early modern times. Women are seen as nurturers and the providers of emotional caretaking, while men are considered providers of economic support. As a girl develops, unknowingly, the lines of Manu-Smriti,” by a young woman, or even by an aged one, nothing must be done independent, even in her own house”. Girls inherit their mother's domestic chores i.e. task such as cleaning, washing, and ironing,
cooking etc. and adopt stereotypical gender roles. Low self-esteem and self-worth are common. After marriage, her husband and in-laws control her life. The news of pregnancy excites a woman; she plans everything for the arrival of the new baby with a lot of care and happiness. She plans to eat healthy and also alters her lifestyle to suit her baby best. The wait to bring a new life surging out of own body is the one that all of aspire to experience at least once in life time. This period is called pregnancy. Pregnancy is not a disease but it is true to say that a pregnant woman does not feel as normal as when not pregnant. A women health is essential to the good health of her baby. Women who eat well and exercise regularly along with regular prenatal checkup are less likely to have complications during pregnancy. And it’s helpful for her to give successfully birth to the baby.

Varicose veins are more common in pregnant women and become more prominent during the third trimester. Prevalence of varicose disease was 68.46% in which 75 were in pregnant women. Majority of affected individuals are women and at least 50 - 60 percent of women suffer to some degree from varicose veins. Varicose veins commonly occur on the legs and thighs but may also occur in the vulva or vagina. Hemorrhoids and varicoceles are other examples of varicose veins and is oftentimes a result of constipation. The baby in utero may also compress some parts of the pelvis (lower abdomen) and lead to an engorgement of the veins in the vulva/vagina leading to varicose veins. During pregnancy, blood volume increases, while the rate at which blood flows from legs to pelvis decreases.

This puts pressure on the veins, which can cause varicose veins. Hormonal changes can also lead to varicose veins as increased progestin levels can dilate or open the veins. Additionally, in the pregnancy uterus grows, it puts pressure on the large vein on the right side of body (the inferior venacava), which increases pressure on the veins. Veins are the blood vessels that return blood from extremities to heart, so the blood in leg veins is already working against the gravity. In pregnancy the amount of blood in the body are increases, adding to the burden on leg veins. Or may complain of dull ache that is present with standing or sitting position for a longer time confirms the presence of varicose veins. Pressure from enlarging uterus starting around 25 weeks, plus increased blood flow to the pelvic area, can cause the veins in the rectal wall to swell, bulge and itch. Aggravated, or even cause, hemorrhoids (when stool is hard, the extra straining need to eliminate it can put pressure on the veins in rectal area and cause them to swell and bulge).

II. OBJECTIVES OF THE STUDY

- To assess the knowledge regarding prevention of varicose vein among antenatal mothers.
- To assess the effectiveness of self-instructional module on knowledge regarding varicose vein among antenatal mothers.
- To find out association between the knowledge score and the selected demographic variables.

HYPOTHESIS:

- H0: There is no significant difference between the pre and post-test knowledge scores regarding prevention of varicose veins among antenatal mothers.
- H1: There is a significant difference between the pre and post-test knowledge scores regarding prevention of varicose veins among antenatal mothers.

PROBLEM STATEMENT

“A study to assess the effectiveness of self-instructional module on knowledge regarding prevention of varicose veins among antenatal mothers selected hospital.”

III. REVIEW OF LITERATURE:

1. Literature related to varicose veins

Nitin Joseph, Abhishai B, Mohamed Faizan Thouseef, Uma Devi M et al. (2016), conducted a study on a multicenter review of epidemiology and management of varicose veins for national guidance. The study was done to assess the clinic-epidemiological profile, risk factors and management practices in varicose veins. Medical records of 170 varicose vein cases admitted in tertiary care hospitals between May 2011 to April 2014.
were reviewed retrospectively. The findings of the study were showed that majority of cases 53(31.2%) were of the age group 41–50 years and majority 101 (59.4%) were unskilled workers.

Superficial veins were involved in 123(72.4%) cases. Common symptoms at the time of presentation was ulceration 98(57.6%) followed by pain in the legs 96(56.5%). Ulceration was seen significantly more among females (p = 0.027) and among house wives (p = 0.004). Complications like eczema 46(27.1%), non-healing ulcers 21(12.3%) and deep vein thrombosis 10(5.9%) were reported among cases. Eczema was present significantly more among elderly patients aged above 60 years (p = 0.019). Risk factors like prolonged standing was observed in 86(50.6%) cases. Conservative management methods like limb elevation 50(29.4%) and compression stocking 36(21.2%) was advised to patients. The study was concluded that the high risk groups identified in this study need to be made aware of risk of developing varicose veins. Use of compression stocking at workplace added with newer procedure in management could help in betterment in their quality of life.31

Hamid Sharif Nia et al. (2014), conducted a study on varicose veins of the legs among nurses. The study aimed that to determine the relationship between occupational and demographic hazards that characterized varicose veins in the legs and their intensity among nurses. A cross-sectional study was carried out among 203 nurses from three general hospitals. The required subjects’ information was collected through a self-filled questionnaire and the physical examination of the Varicose Veins intensity was based on the clinical finding using the etiology, anatomic finding & pathophysiological standards. The prevalence of Varicose Veins, with different degrees, was 72.4% (95% CI 65.7–78.4), with women having a higher prevalence compared with men (77.9% vs. 56.9%, P = 0.004). The other non-interventional risk variable was having longer years of service. Interventional variables were long-standing hours, overtime work and body mass index status. This study had determined the occupational risk variables on Varicose Veins which could be interventional in improving the working nurses’ environment and quality of life for their long-term career.32

2. Literature related to pregnancy and varicose veins.

Newton De Barros junior et.al (June 2010), conducted a study on pregnancy and lower limb varicose veins: Prevalence and risk factors. During and after pregnancy, lower limb varicose disease present specific features that have influenced the condition of the studies design to provide a better understanding of the condition. Objective of the study was to assess the prevalence of lower limb varicose disease during the pregnancy and to identify the main associated risk factors. Prevalence of varicose disease during pregnancy is high, affecting 70% of pregnant women considering all types of varicose disease. This high prevalence is mainly caused by the increase in the estrogen and progesterone level during pregnancy. They analyzed 352 pregnant women during prenatal follow-up. The subjects were randomly selected during a 14-month’s period. Varicose disease was clinically identified and classified according to Widmer's criteria: trunk varicose veins, and telangiectasia; being reclassified according to the criteria of the CEAP clinical classification. The result of prevalence and risk factors were statistically analyzed using univariate and multivariate analyses. Findings shows that considering all types of varicose veins, prevalence of varicose disease was 72.7% (256 pregnant women). Only 27.3% (96) of pregnant women did not have varicose disease. After multivariate analysis, the main risk factors were: family history and pregnant women’s age. The study was concluded that the high prevalence of varicose disease and the associated risk factors suggest the need of the providing the health professional involved in women’s health care, especially during the fertile period, with information on this disease.18

Smyth RM et al. (2015), conducted study on Interventions for varicose veins and leg edema in pregnancy. Objectives was the study to assess any form of intervention used to relieve the symptoms associated with varicose veins and leg edema in pregnancy. Study concluded that there was moderate quality evidence to suggest that rut sides appear to help relieve the symptoms of varicose veins in late pregnancy. Reflexology or water immersion appears to help improve symptoms for women with leg edema.43

3. Literature related to knowledge of antenatal mothers regarding minor ailments.

Kareem Fattah Aziz et al. (2016), conducted study on Self-management regarding minor discomforts and practices during prenatal period is beneficial for pregnant women so knowledge and practices of women about self-management is necessary for their health protection and the aims of study is to assess knowledge and practices of pregnant women regarding minor discomforts during pregnancy. The descriptive study was conducted for 370 healthy pregnant women at four Primary Health Care Centers from October 2014 to November 2015. Data were

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collected through interview by using questionnaire methods. Questionnaire was designed and divided into four parts; the first part includes socio-demographic characteristics of pregnant women, the second part contains obstetric history, the third part deals with knowledge about minor discomforts and the fourth part comprises ten areas of practical care regarding minor discomforts during pregnancy. The questionnaire contains 53 items using 3 Likert scales. Reliability was determined by 24 experts. The results showed that the majority of the study sample was between 18-25 years old, secondary school graduates, housewives and nuclear families. The evidence from the study showed that self-management was poor and pregnant women had fair knowledge. Finding of the study revealed that self-management practices of pregnant women regarding minor discomforts were very poor also. There was a significant association between knowledge and age group, level of education and gestational age. While there was no significant association between self-management practices regarding minor discomforts and age group.53

Bhuneshwari. K (2010), conducted a Non experimental a study with sample size 30 antenatal mothers attending antenatal outpatient department. Questionnaire were used to assess the knowledge of mothers. The study was concluded that most of mothers had in adequate and moderate level of knowledge of minor ailments and the home remedies during pregnancy the showed that there was significant association between the income and knowledge of minor ailments and home remedies during pregnancy among mothers at the level of P<0.001.10 Many women experience unpleasant and painful leg cramps during pregnancy. They wake in the middle of the night in severe pain as their calf muscles tighten. These are brought on by the physical and physiological changes that occur during pregnancy and unfortunately there are no guaranteed cures for them. However there are steps that can be taken that may reduce their incidence and severity. Leg cramps have been reported in up to 30% of pregnant women, most commonly in the second and third trimester. They usually affect the calves and occur at night in 75% of cases.54

Ann Barnes et al. (2014), conducted a study on effectiveness of Self Instructional Module on Knowledge regarding the Prevention and Management of Varicose Veins among Teachers in Selected Schools. A cohort study was done to assess the prevalence and extent of treatment of varicose veins in a Finnish population by using mailed questionnaires. The population comprised of 3284 men and 3590 women. The result found was the life time prevalence of varicose veins which was 18% for men and 32% for women. 25% of men and 41% of women who reported varicose vein had received treatment. Thus the researchers concluded that prevalence of varicose veins was high in the population studied and that preventive measures were required because treatment alone seems to be inadequate in control of varicose veins.59

IV. METHODOLOGY:

- **Research design**: Pre experimental one group pre-test post-test design is considered for this present study.
- **Sampling technique**: Non-probability purposive Sampling.
- **Sample size**: Sample size for the study is 60
- **Research Approach**: Research Approach is Evaluative Approach.
- **Duration of the study**: Duration of the study is 6 Weeks.
- **Tool**: Structured questionnaire regarding the varicose vein among antenatal mothers.
- **Validity**: Validity of tool done by 15 experts and modification were made accordingly.
- **Reliability**: Reliability was estimated with the Spearman Brownprophecy formula is used to estimate the reliability coefficient of the entire test/scale reliability of the tool was 89.25% and hence the tool was reliable.
- **Data Collection**: Data was collected from 60 Antenatal mothers from selected hospitals of the city.
- **Data Analysis**: The data was collected was analyzed using Descriptive inferential statistics.
INCLUSION CRITERIA:

- Antenatal mothers who are 1st and 2nd trimester of pregnancy.
- Antenatal mothers those are willing to participate.
- Who are available during data collection.

EXCLUSION CRITERIA:

- Antenatal mothers who are illiterate
- Antenatal mothers with any psychiatric condition.
- Antenatal mothers who are suffering from varicose veins.

MAJOR FINDINGS OF THE STUDY:

Section – I: Findings related to demographic characteristics of the study subjects

- Majority 52 (86.7%) of subjects were in age group of 20-29 years, followed by 8 (13.3%) subjects were in age group of 30-39 years.
- Majority 15 (25.0%) of subjects were in primary educational group, followed by 30 (50.0%) of subjects were in secondary educational group, followed by 12 (20.0%) of subjects were in graduation group, followed by 3 (5.0%) of subjects were in post-graduation educational group.
- Majority 54 (90.0%) of subjects were in Homemaker from occupational group, followed by 6 (10.0%) of subjects were in Office Work group.
- Majority 30 (50.0%) of subjects had 3001-6000rs family income per month, followed by 13 (21.7%) of subjects had 6001-9000rs family income per month, followed by 9 (15.0%) of subjects had less than 3000rs family income per month, followed by 8 (13.3%) of subjects had >9000rs family income per month.
- Majority 23 (38.3%) of subjects had attended >5 Antenatal visits, followed by 19 (31.7%) of subjects had attended 3-4 Antenatal visits, Followed by 18 (30.0%) of subjects had attended 1-2 Antenatal visits.
- Majority 27 (45.0%) of subjects have one child, followed by 26 (43.3%) of subjects were not having any child, 7 (11.7%) subjects have two children.
- Majority 60 (100%) of subjects were didn’t heard of management of enlarged twisted veins during pregnancy?
- Majority 60 (100%) of subjects were found that do not have anybody in the family history of enlarged twisted veins during pregnancy.

Section –II: Findings related to knowledge of antenatal mothers regarding prevention of varicose vein.

In pre-test maximum 30 (50%) had poor knowledge, while 24 (40%) had average knowledge, While 6 (10%) had good knowledge, where as in post- test majority 50 (83.33%) of the subjects had excellent knowledge while 10 (16.67%) had good knowledge.

Thus the knowledge score of the antenatal mothers showed a marked increase as seen in post test score of the study group, which indicates that the Self-instructional module was effective in increasing the knowledge of the subjects regarding prevention of varicose veins varicose veins.

Section-III: - Findings related to the effectiveness of Self-instructional Module.

This section deals with comparison of mean knowledge score before and after Self-instructional module. In pre-test maximum 30 (50%) had poor knowledge, while 24 (40%) had average knowledge, While 6 (10%) had good
knowledge, where as in post- test majority 50 (83.33%) of the subjects had excellent knowledge while 10(16.67%) had good knowledge regarding prevention of varicose veins. Mean pre-test score of group is 5.96 with a SD 2.97 and mean post test score is 17.33 with a SD of 1.81 which shows marked increase in post test score. Corresponding P value is 0.0001 which is highly significant.

Thus, the null hypothesis is rejected and Self-instructional Module was found to be highly effective in increasing the knowledge of subjects in the study group.

Section- IV: - Findings related to association between knowledge and with selected demographic variables.

- There is a significant difference of knowledge score according to education in post-test as p<0.05 suggesting association with knowledge.
- There is a significant difference of knowledge score according to occupation in post-test as p<0.05 suggesting association with knowledge.
- There is a significant difference of knowledge score according to No of antenatal visits in post-test as p<0.05 suggesting association with knowledge.
- There is no significant difference of knowledge score according to age in years in post-test as p>0.05 suggesting no association with knowledge.
- There is no significant difference of knowledge score according to monthly income in post-test as p>0.05 suggesting no association with knowledge.

V. CONCLUSION:
The findings of the present study indicated that study subjects had inadequate knowledge scores regarding prevention of varicose vein in pre -test. After the Self-Instructional Module, their knowledge score had increased in the post test. Hence the Sel-Instructional Module on prevention of varicose vein was effective in rendering knowledge and bringing awareness among the antenatal mothers.

SUGGESTION

- Keeping in the view the findings of the study, the following Suggestions are made:
- A similar study can be carried out on large samples to make generalization.
- A comparative study can be done on knowledge regarding prevention of varicose vein among antenatal mothers aged between 20-39 years in rural and urban areas in selected community.
- A Structured Teaching Programme on knowledge regarding prevention of varicose vein and its management among antenatal mothers in selected community.
- A study can be conducted to find the incidence of varicose veins among antenatal mothers age between 20-39 years.
- A similar study can be done on knowledge regarding varicose vein among pregnant women visiting in hospitals.
- A similar study can be done to assess the effectiveness of information booklet regarding Knowledge on prevention of varicose vein among antenatal mothers.

REFERENCES
1 Maureen Hawkin, Summer reading quotes. (2009) https://www.goodreads.com/quotes/58884-before-you-were-conceived-i-wanted-you-before-you-were


