A COMPARITIVE STUDY TO ASSESS THE RISK OF STROKE AMONG WORKING AND NON WORKING WOMEN RESIDING AT PERINTHALMANNA MUNCIPALITY

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Abstract :

The present study was conducted to compare the risk of stroke among working and non-working women residing at Perinthalmanna Municipality. **Objectives:** Assess risk of stroke among Working women and non – working women residing at Perinthalmanna Municipality,Compare the risk among the two category,Find association between risk of stroke among working and non-working women with selected demographic variables. **Methodology :**The investigator adopted quantitative approach and comparative descriptive research design. The study was conducted among 100 working and 100 non-working women selected using purposive sampling technique. The risk of stroke among working and non-working women were assessed using self-structured stroke risk assessment questionnaire. **Analysis** : The collected data were analysed by using inferential and descriptive statistics. **Conclusion :**The present study was concluded that the mean stroke risk of working women (27.11) was greater than mean stroke risk of non-working women(26.17).The calculated Z value was (Z=1.96) which shows that there is no significant difference between risk of stroke among working and non-working women. The analysis reveals that there is a significant association between risk of stroke among working women with being bread winner of the family. The study also reveals that there is a significant association between risk of stroke among non-working women with selected demographic variables like socioeconomic status, education and knowledge about stroke.

Index Terms: Risk, Stroke , Working women, Non-working women.

BACKGROUND OF THE STUDY

Stroke refers to the death of brain cells that occurs when there is ischemia or hemorrhage to a part of the brain. Stroke is a major healthcare issue in both developing and developed countries with deleterious effects at individual, family and societal levels. Reducing the burden of stroke in the population requires identification of modifiable risk factors and demonstration of the efficacy of risk reduction efforts. There are numerous risk factors for stroke, including both modifiable and non-modifiable risk factors. Risk factors that can be controlled, or changed, are called modifiable, it includes hypertension, heart disease, diabetes mellitus, hypercholesterolemia, obesity, smoking, alcohol consumption, unhealthy lifestyle, and stress. Non-modifiable risk factors cannot be controlled; it includes age, gender, family history of stroke, and ethnicity. In addition, risk factors may also be thought of as short-term risks or triggers, for example infectious events, sepsis, and stress, intermediate-term risk factors example likes hypertension and hyperlipidaemia, and long-term risk factors for stroke like sex and race. Younger patient's risk factors for stroke are probably different from those of older patients. Stroke is a particularly occur differently in women and men. Women account for over half of all persons who experienced a stroke. Women often have unique risk factors, such as hormonal changes during pregnancy and menopause. Investigating these gender-specific risk factors can provide valuable insights into the varying stroke risks among women. Women have a higher lifetime risk of stroke than men possess. Furthermore, the prognosis for stroke is poorer in women than in men. Traditional vascular risk factors such as hypertension, hyperlipidaemia, diabetes, smoking, and atrial fibrillation, which affect both men and women, account for most stroke occurrence. Particularly, variables that are unique to women include variations in sex hormones, exogenous estrogens, and pregnancy exposures. A woman is more vulnerable to stroke in later years, after menopause and during pregnancy. Maternal stroke, also known as pregnancy-related stroke, refers to ischemic or hemarrhagic strokes that transpire throughout pregnancy and postpartum phase. Compared to the antepartum period, the peripartum and postpartum periods carry an increased risk of maternal strokeThe women have specific risk factors for developing stroke like exogenous estrogen, use of oral contraceptive pills,oral menopausal hormone replacement therapy are increase the risk of stroke and also the lifetime endogenous estrogen exposure or the reproductive lifespan defined as the time from menarche to menopause is closely related to stroke risk. There are many social factors that increase the risk of stroke. It includes living in a poor or rural area, having low education or income level, stress level, being black or lacking health insurance. Among the various demographic groups, understanding the risk of stroke among working and non-working women is of paramount importance due to its potential impact on both individual lives and societal health care resources. Stroke is a major health concern, affecting millions of people globally. Studying the prevalence of stroke among women, specifically comparing those who are working and those who are not, is crucial to understanding the magnitude of the issue within these subgroups. Numerous factors contribute to an individual's risk of stroke, including lifestyle, genetics, and socioeconomic status. According to these social determinants stroke occurance is in different ratios among working and non- working women. Especially in working women has high psychological demands, low job control,level of physical activity, long duration of working hours and job strain

were all associated with an increased risk of stroke. Any major reduction in deaths and disability from stroke is likely to come from decreasing social inequalities in health, and reducing work stress has a potential to contribute to a reduced risk of stroke in working populations.[1]

NEED AND SIGNIFICANTS

A cross sectional study was conducted among working and non- working women in an urban area in South Goa to assess the health related quality of life. Study conducted among 50 working and 50 non- working married women between 25 to 45 years of age. Simple random sampling was used to select the households and data was collected through face to face interview and the health related quality of life was assessed using SF-36 questionnaire. Frequencies, percentages, averages, and standard deviations were used to summarise the data. The working women had higher SF-36 scores in all the 8 categories. The mean score of general health domainin working women was 63.80±15.17 among working women compared to 50.20±10.50 among non- working women .Findings of this study suggest working women to have better quality of life. This could be because working women feel secure, independent, and good about themselves.[2]

A prospective cohort study conducted on healthy lifestyle and risk of stroke in women in Germany. The data was collected from 37636 women 45 years or older by self reports and confirmed by means of medical record review. This study considered smoking, alcohol consumption, exercise, body mass index, and diet. During 10 years of follow-up,450 strokes were confirmed. Results shows that the risk of stroke among 55%high in women who have sedentary life styles than the women who follows healthy life styles about 35.6%. The study concluded that there is a association between healthy life styles and risk of stroke in women.[3]

A cross-sectional study with case control comparison to identify the the prevalence, pattern, factors of stroke in women conducted during November 2015 to January 2016 in the department of Neurology at the Employees State Insurance Corporations Super Speciality Hospital, Hyderabad, a tertiary referral center in South India. During the study period, 100 stroke patients were identified. The age of incidence ranged from 18-79 years having a mean and median age of 54 years. 31 were females and 69 were males. Mean age was 57 years for females and 52 years in males. The ischemic type was the major pattern of stroke. Menopause, hypertension and dyslipidaemia were the major risk factors of stroke among women. Women are less habituated to alcohol use and smoking in India. Low physical activity is identified as significant risk factor when compared to men. Women are more likely to be disabled after stroke than men. It is important for women to maximize a healthy lifestyle throughout midlife to reduce the overall risk for stroke and cardiovascular disease. [4]

A Descriptive study conducted in Kaviyur village of Pathanamthitta District, Kerala. A total of 410 adults , were given a self administered stroke risk assessment questionnaire followed by blood pressure, height and weight measurement.This study was conducted in two phases at Kaviyur village having a population of 17,882, in Pathanamthitta District of Kerala state. Around 52.7% were more than 55 years and 58. 8% were females. Almost

more than half of the samples were identified in moderate to high risk category of stroke. And concluded that the modifiable risk factors are two times greater than that of non modifiable risk factors.These findings helped to provide awareness program on primary prevention of stroke.[5]

According to article Work status and health of women by world health and population was conducted a comparative study Northern and Southern states of rural India.The study conducted with sample size of 300 women aged from 20-50 ,using written survey approach.They examined whether the work status-health relationship differs between the southern and northern regions of India, which are known to be distinct in female autonomy. Results show that though both work status and socioeconomic status influence health status, the later are more important.[6]

Many women do not know their risk of having a stroke, but 4 in 5 strokes are preventable. That's why it's important to know your risk for stroke and take action to protect your health.

Review of literature:

A prospective cohort study was conducted in the USA about healthy lifestyle and risk of stroke in women, the sample size was 37636 women 45 years or older. The sampling technique was stratified random sampling. Data was collected by self-reports and confirmed by means of medical record review. This study considered smoking, alcohol consumption, exercise, body mass index, and diet. During 10 years of follow-up, 4500 strokes were confirmed or 11%.[7]

A retrospective study was conducted to assess the prevalence of stroke in pregnancy that contributes to stroke in pregnant women among a sample of patients in Sungai Buloh Hospital, Malaysia. The sampling technique was quota sampling. A sample size of 10,000 women of childbearing age between 15 &49 years old found that the rate of first stroke in these women was 24.7 per 10 lakh person-years (95%). The absolute rates of both ischemic and hemarrhagic stroke were higher in the peripartum and postpartum periods with 161.1 and 14.1 respectively. In other words, the incidence rate ratio (IRR) was 9.4 times higher during the peripartum period and 2.7 times higher during the early postpartum period.[8]

A cross-sectional research of working women in Shenzhen, China, was carried out to assess stress level in women. A sample size of 968 working women with a mean age of 31.62 was included in the study. Quota sampling is the method of sampling that is applied. Demographic information, employment characteristics, work stress, family stress, suicidal thoughts, and stroke risk were all gathered using non-standardized methods. To evaluate potential relationships, multivariate logistic regression models were used, and the odd ratio and 95% confidence interval were computed. The study revealed that there was a 19.4% incidence of suicidal ideation and a positive correlation between the risk of stroke and working night shifts, taking sick leave, and experiencing family stress. This study supports the prevention of strokes by demonstrating that working women receive instant relief.[9]

A comparative study was conducted among working and non-working women in Banglore. The study was conducted with 30 working and 30 non-working women. Nonprobability Purposive Sampling technique was used.

A self-structured questionnaire consists of two sections A & B. section A consists of a demographic profile and Section B consists of 60 open-ended questions to assess the level of stress among women. Overall mean of level of stress was 104.53 (± 6.653) for working women and 145.83 (± 8.76) for non-working women. The study concluded that there was a significant difference between the levels of that there was a significant difference between the levels of stress among working and non-working women.[10]

STATEMENT OF THE PROBLEM

A comparative study to assess the risk of stroke among working and non working women residing at Perinthalmanna Muncipality

OBJECTIVES

- Assess risk of stroke among Non- working women in Perinthalmanna Muncipality.
- Compare the risk of stroke among Working and non-working women in Perinthalmanna Muncipality.
- Find out association between risk of stroke among Working and non-working women with selected demographic variables.

HYPOTHESIS:

- H1:- There is a significant association between risk of stroke among Working women with selected demographic variable.

CONCEPTUAL FRAMEWORK

The study was based on the Health Belief Model (HBM) by social psychologists Godfrey Hochbaum, Irwin Rosenstock, and Kirscht.

RESEARCH METHODOLOGY

Research approach: Quantitative research

Research design: Non experimental comparative research design

Setting: Perinthalmanna Municipality.

Sample: Working and Non-working women

Sample size: 100 working and 100 non-working women.

Sampling technique: Purposive sampling technique

Tools and techniques: Demographic performa and self-structured stroke risk assessment questionnaire were used for the study.

Instruments:

PART 1:

Demographic performa including age, education, place of residence, religion, occupation, duration of activity, socioeconomic status, Bread winner of family, Accessibility of health care services, Knowledge about Stroke.

PART 2:

Self-structured stroke risk assessment questionnaire: The self-structured questionnaire is an important tool for stroke risk assessment. It consists of 19 questions with responses stating yes, unknown and no with a score of 3, 2 and 1 respectively.

Scoring of the tool: A sum total of scoring obtained in all questions were graded as

High risk (57-45), Moderate risk (44-32), Low risk (31-19).

DATA COLLECTION PROCESS:

The present study was conducted among 100 Working and 100 Non-working women residing and working at Perinthalmanna Municipality. The study participants were selected using Purposive sampling and on the basis of inclusion criteria. Informed consent was obtained from the study participants. The data collection was conducted through self-reporting technique using demographic proforma, and self-administered stroke risk assessment tool. After data collection the risk of stroke among working and Non-working women were analyzed and interpreted using descriptive and inferential statistics.

ETHICAL CONSIDERATION:

Ethical clearance was taken from institutional authorities and ethical committee.

RESULTS:

SECTION A: DISTRIBUTION OF DEMOGRAPHIC CHARACTERISTICS OF WORKING AND NON-WORKING WOMEN

The characteristics of the study population are:

- Among total sample size of 200 (100 working and 100 non-working women) 71 (35.5%) belong to 20 -40 years old, 101 (50.5%) were 41-60 years old and 28 (14%) belong to age group of 61 years and above.

- In the given 200 samples with respect to education, 59 (29.5%) had primary education, 49 (24.5%) had secondary education, 26 (13%) had higher secondary education, 66 (33%) were with qualification of graduates and above.

- Among 200 samples 96 (48%) were living in rural areas, 104 (52%) were living in urban areas.

- Out of 200 samples 118 (59%) were Hindu, 54 (27%) were Muslims, 25 (12.5%) Christian, and 3 (1.5%) belong to other religions.

- Hundred (50%) were housewives, 62 (31%) engaged in office work and remaining 38 (19%) were doing manual work.

- One hundred and sixty (80%) worked for 5-8 hours and 40 (20%) for 9-12 hours.Forty six (23%) of them belonged to the Upper class, 109 (54.5%) belonged to the middle Class and the remaining 45 (22.5%) were from lower class.

- Twenty of them (10%) were breadwinners of their family, 90 (45%) were partial breadwinners, 90 (45%) showed no involvement.

- Regarding accessibility of health care services, 126 (63%) had more accessibility, 64(32%) had moderate accessibility and remaining 10 (5%) had less accessibility.

- Among 200 samples 92 (46%) had knowledge adequate level of knowledge related to stroke, 66 (33%) had minimum knowledge and the remaining 42 (21%) had no knowledge about stroke.

SECTION B: ASSESSMENT OF RISK OF STROKE AMONG WORKING WOMEN

The risk of stroke among working women is calculated by the structured stroke risk assessment tool, 85% of them were having low risk, 13% had moderate risk and 2% had higher risk of stroke.

SECTION C: ASSESSMENT OF RISK OF STROKE AMONG NON-WORKING WOMEN

The risk of stroke among non-working women calculated by the structured stroke risk assessment tool showed that 91% had low risk, 8% had moderate risk and remaining 1% had higher risk of stroke.

SECTION D: COMPARE THE RISK OF STROKE AMONG WORKING AND NON-WORKING WOMEN

The comparison of stroke risk among working and non- working women was analyzed using Z test. It shows that the mean stroke risk of working women (27.11) was greater than mean stroke risk of non- working women (26.17). The calculated Z value (1.38) was lower than value (Z=1.96) at 0.05 level of significance. Hence the null hypothesis was accepted and research hypothesis rejected. This shows that there is no significant difference between risk of stroke among working and non-working women.

SECTION E: EVALUATION OF ASSOCIATION BETWEEN WORKING AND NON- WORKING WOMEN

The study shows that there is a significant association between risk of stroke among working women with being breadwinner of the family. The study also shows that there is a significant association between risk of stroke among non- working women with education, socioeconomic status and knowledge about stroke.

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