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RISK FACTORS OF STROKE AMONG YOUNG ADULTS

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Abstract

Introduction Stroke is among the main causes of death and disabilities globally, and the prevalence of strokes among young adults has become a serious issue. This research focuses on the major risk factors leading to stroke cases among young adults aged 18–45 years. A quantitative research design was used for the current study, and a total of 120 participants from hospitals and health centers participated in the study. Lifestyle risk factors such as smoking and drinking were evaluated in relation to their contribution to stroke occurrence. It was found that other lifestyle factors such as physical inactivity, overweight, high blood pressure, heart disease, and diabetes were the common risk factors leading to stroke. The analysis also found that patients within the age range of 36–45 years were more affected by strokes than those who are in other age brackets. Moreover, the study found that the levels of knowledge regarding stroke prevention among respondents were relatively low. Conclusion In conclusion, the study found that adopting healthy lifestyles can greatly prevent stroke among young adults.

Keywords: *Stroke, Young Adults, Risk Factors, Hypertension, Smoking, Diabetes Mellitus, Lifestyle Factors, Stroke Prevention.*

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1. INTRODUCTION

Strokes account for a significant proportion of deaths and long-term disabilities around the world. For a long time, stroke was viewed as a disease that predominantly affects older adults. However, the recent trend shows that there is a rising number of cases among young adults. Young adults are defined as those aged between 18 to 45 years. This is worrying because stroke affects people in their prime years when they need to be more productive than ever, which creates both social and economic problems for families and societies at large.

There are various reasons why young adults get strokes. The main reason is the unhealthy lifestyles associated with factors like smoking, excessive use of alcohol, obesity, poor nutrition, lack of exercise, and drug abuse. Apart from these lifestyle risks, several medical conditions increase the risk of developing strokes among young adults. These include conditions like high blood pressure, diabetes, heart diseases, and genetics. Modern life conditions such as rapid urbanization and increased workload have also contributed to the risk factors.

Therefore, prevention of the risk factors and early treatment of the factors can prevent many cases of stroke and improve the well-being of the young adults. Identifying the major determinants and understanding their effects are very critical in developing intervention measures. It will enable healthcare practitioners to implement prevention measures, awareness campaigns, and treatment options for young adults. Thus, the purpose of this study is to investigate the major risk factors of strokes among young adults.

1.1.Major Risk Factors Associated with Stroke Among Young Adults

Stroke risk factors in young adults can be generally categorized into modifiable and non-modifiable risk factors. The modifiable factors are smoking, high blood pressure, diabetes, obesity, lack of exercise, high alcohol consumption, stress, and poor nutrition that can be managed through changes in one's lifestyle and medication. Age, gender, genetics, and a family history of strokes are some of the non-modifiable risk factors. However, high blood pressure and smoking are two common factors that are responsible for causing strokes in young adults. It is therefore imperative to create awareness on the same.

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1.2.Objectives of the Study

1. To identify the major risk factors responsible for stroke among young adults.
2. To examine the association between lifestyle factors and the occurrence of stroke among young adults.
3. To analyze the impact of medical conditions such as hypertension and diabetes on stroke incidence.
4. To suggest preventive measures for reducing the risk of stroke among young adults.

2. REVIEW OF LITERATURE

Patricia Namaganda et al. (2022) performed a case-control study to investigate the kinds of strokes and their respective risk factors in young people. This study concluded that factors such as high blood pressure, smoking, alcohol drinking, and HIV infection were responsible for causing strokes in younger people. They stated that ischemic strokes were common in young people compared to hemorrhagic strokes. This study also focused on the significance of diagnosing the disease at an early stage and preventive measures to help decrease stroke cases in developing countries.

Mary G. George, Tong, and Bowman (2017) studied the prevalence of cardiovascular risk factors and stroke in younger individuals. It was found that there was an alarming rise in cases of hypertension, diabetes, obesity, smoking, and high levels of cholesterol in young people in recent times. It was stated by the authors that due to the increasing prevalence of risk factors for cardiovascular diseases, there was an alarming rise in the incidence of stroke in younger populations.

Andreas Aigner et al. (2017) investigated the role played by existing risk factors for strokes in causing the incidence of strokes among young people. The study revealed that there was a high probability of strokes occurring among young people who were hypertensive, smoked, suffered from diabetes mellitus, had obesity, or were physically inactive. It was concluded that existing cardiovascular risk factors, which were usually linked to older people, have now

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started affecting younger individuals. It was recommended that there should be enhanced awareness about health-related lifestyle habits.

Marieke E. van Alebeek et al. (2018) The FUTURE study was carried out to examine the underlying mechanisms and the risk factors for strokes in young patients. The risk factors identified by the study include high blood pressure, dyslipidemia, heart diseases, smoking, and genetics. According to the authors of the study, both modifiable and non-modifiable risk factors lead to the incidence of strokes in young patients. The importance of increasing awareness regarding the issue, preventive health care services, and proper medical care is highlighted by the study.

3. RESEARCH METHODOLOGY

Research methodology is defined as a set of procedures that the researcher employs to conduct the research. It involves gathering, analyzing, and interpreting information pertinent to the research problem. Research methodology provides a well-organized approach through which research may be conducted and objectives may be met efficiently. This research project aims at highlighting the risk factors for stroke in young people. Thus, suitable methods have been used in order to gather and analyze relevant data.

3.1.Research Design

In the current study, the researchers used a quantitative research methodology to assess the risks involved in strokes occurring in young individuals. The rationale behind using a quantitative methodology is that it allows the researchers to collect numeric data and analyze the relationship between the different risks factors leading to strokes.

3.2.Study Area

This research was carried out at chosen hospitals and health care centers that were treating young adult stroke patients.

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3.3.Population of the Study

The sample population included young adults suffering from stroke within the age range of 18-45 years.

3.4.Sample Size

In total, 120 subjects were used in the study. The sample consisted of young people affected by stroke who are currently under medication in the selected health facilities.

3.5.Sampling Technique

The convenience sampling approach was used in the selection of subjects. The choice of this method was guided by the availability and accessibility of the subjects at the time of data gathering.

3.6.Method of Data Analysis

The gathered data were then categorized, arranged, and analyzed using some basic statistical methods like:

- Frequency distribution
- Percentage analysis
- Tabular presentation

The analyzed data were presented in tables.

4. RESULT AND DISCUSSION

This part will interpret and analyze the data received from the total sample of 120 respondents concerning the risk factors for stroke in young adults. To interpret and analyze the data, a percentage and frequency distribution approach was used, with results displayed in tables. Interpretation and analysis will concentrate on demographics, lifestyle risk factors, diseases leading to stroke, and awareness about stroke prevention among respondents. Interpretation of the data is important in providing an insight into the increased cases of strokes in young adults

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and the need for early prevention of the disease through healthy lifestyles and health care education.

Table 1: Distribution of Respondents According to Age Group

Age Group (Years)	Number of Respondents	Percentage (%)
18–25	18	15.0
26–35	46	38.3
36–45	56	46.7
Total	**120**	**100**

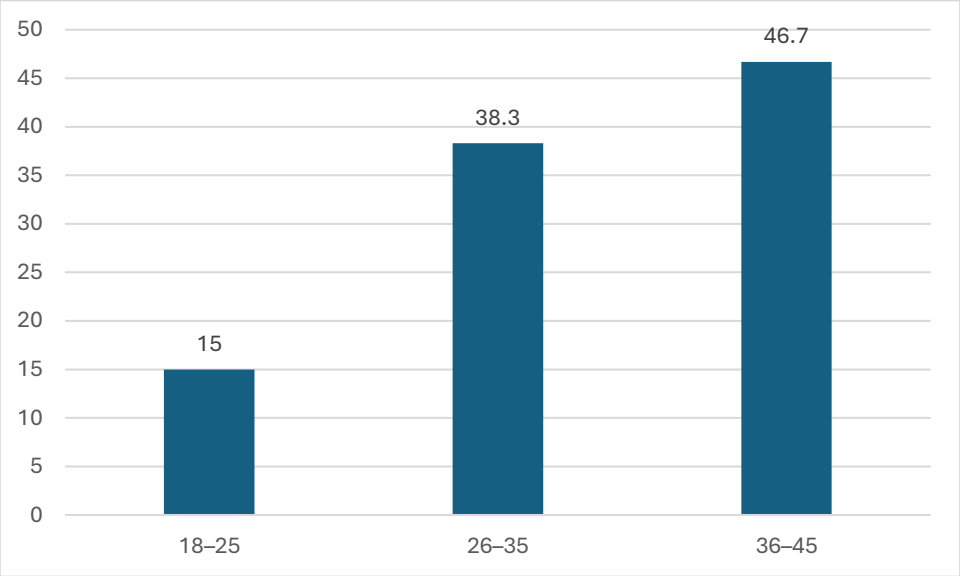

Figure 1: Graphical presentation of Distribution of Respondents According to Age Group

Table 1 presents the classification of stroke cases in young people with respect to age groups. From the 120 participants involved in the study, 56 (46.7%) were in the 36-45 age bracket, making up the largest proportion of the cases studied. This was followed by 46 (38.3%) who were in the 26-35 age category. Finally, 18 (15%) of the participants were in the 18-25 age category, representing the smallest number of respondents among all the age categories. It can be observed from the results that although stroke affects old persons more than young people, the incidence of stroke in young persons, especially in young people close to middle age, is rising significantly.

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Table 2: Lifestyle-Related Risk Factors Among Respondents

Risk Factor	Number of Respondents	Percentage (%)
Smoking	38	31.7
Alcohol Consumption	26	21.7
Obesity	22	18.3
Physical Inactivity	20	16.7
High Stress Levels	14	11.6
Total	**120**	**100**

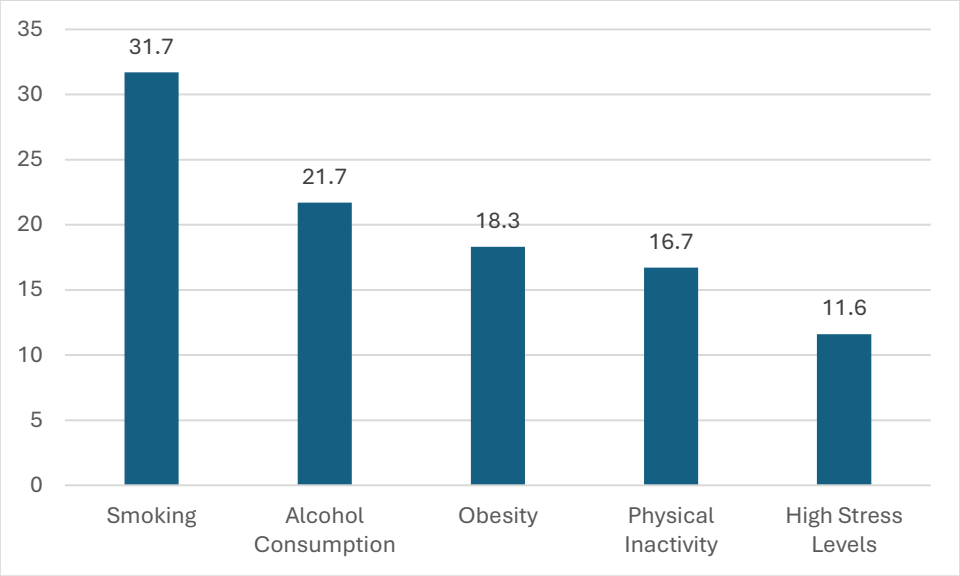

Figure 2: Graphical presentation of Lifestyle-Related Risk Factors Among Respondents

Table 2 provides an overview of the lifestyle factors that lead to stroke in young adults. Out of all the different factors listed above, smoking emerged as the most prevalent risk factor with 38 participants or 31.7% reporting this. This shows that tobacco use has an important role in making young adults more prone to stroke because it causes damage to blood vessels and elevated blood pressure. Alcohol use emerged as the next prevalent risk factor among 26 individuals or 21.7%. It demonstrates that heavy use of alcohol leads to cardiovascular problems that result in strokes. Obesity was another major risk factor among 22 individuals or 18.3%, which is evidence of poor eating habits and an inactive lifestyle that make individuals vulnerable to strokes. Physical inactivity was also noted among 20 individuals or 16.7% of the

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sample size. High stress levels were also seen among 14 individuals or 11.6% of the participants.

Table 3: Medical Conditions Associated with Stroke

Medical Condition	Number of Respondents	Percentage (%)
Hypertension	44	36.7
Diabetes Mellitus	30	25.0
Heart Disease	24	20.0
High Cholesterol	22	18.3
Total	**120**	**100**

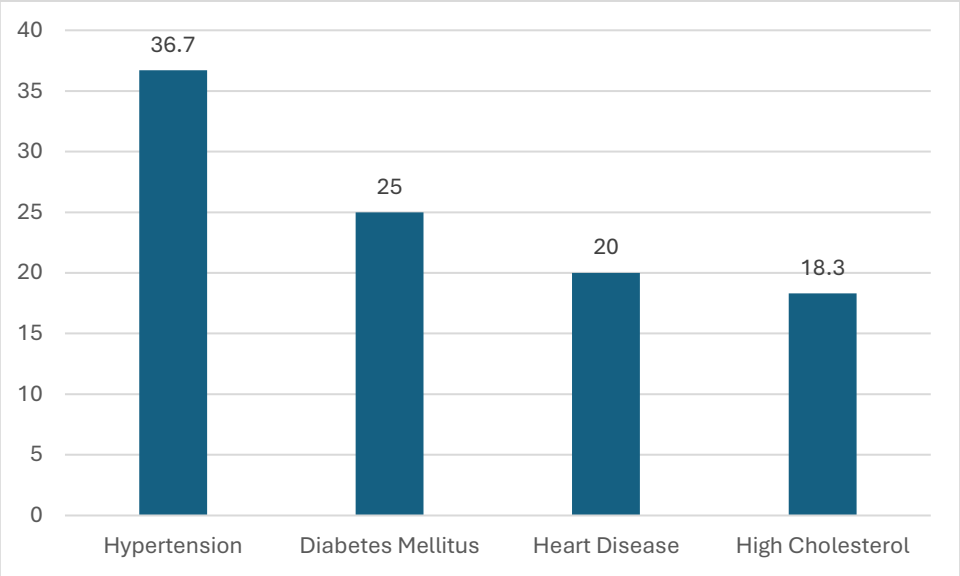

Figure 3: Graphical presentation of Medical Conditions Associated with Stroke

Table 3 shows some of the common medical conditions experienced by patients with stroke within their young age range. Hypertension turned out to be the most common medical condition among young adult respondents, which was experienced by 44 people (36.7%). It means that having hypertension significantly contributes to increased risks of experiencing stroke since such a condition destroys blood vessels and facilitates the development of clots. Diabetes mellitus was found in 30 respondents (25%), which means that being a diabetic increases the risks of developing stroke because of poor blood flow. Heart disease was also experienced by 24 respondents (20%) and is believed to significantly affect the probability of

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experiencing a stroke among young adults. Finally, having high cholesterol was indicated in the cases of 22 participants (18.3%), meaning that too many deposits in the blood vessels increase the risk of experiencing stroke due to artery obstruction.

Table 4: Awareness Regarding Stroke Prevention Among Respondents

Level of Awareness	Number of Respondents	Percentage (%)
High Awareness	28	23.3
Moderate Awareness	52	43.3
Low Awareness	40	33.4
Total	**120**	**100**

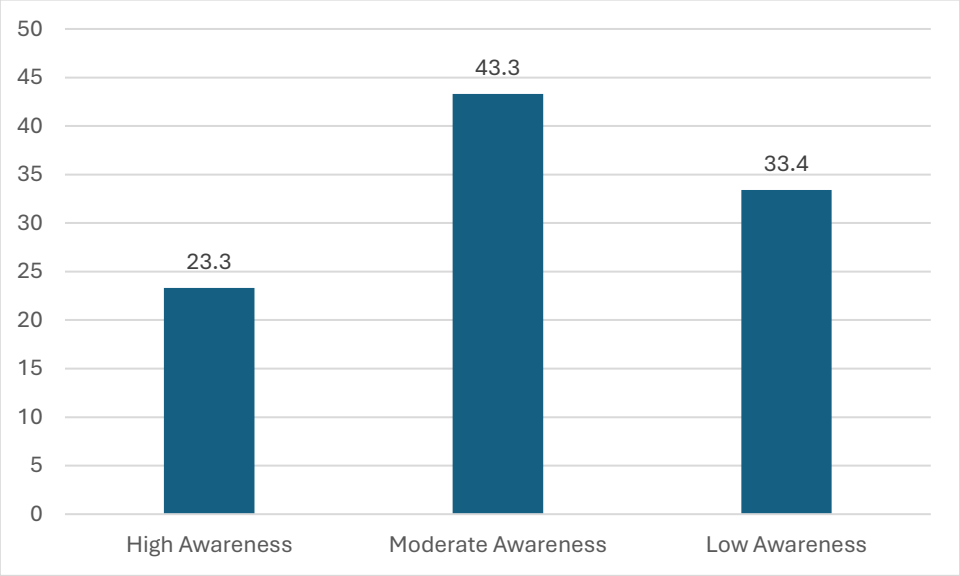

Figure 4: Graphical presentation of Awareness Regarding Stroke Prevention Among Respondents

Figure 4 depicts the degree of awareness concerning the prevention of stroke among the study participants. Majority of the participants (52 participants) had moderate awareness concerning the prevention of stroke. It means that while most people have adequate information concerning stroke and how to prevent it, the level of information may be insufficient for the implementation of effective preventive actions. Many participants (40 participants) had low levels of awareness concerning stroke prevention, which demonstrates that most people have insufficient information concerning the symptoms, causes, and preventive measures. Few participants (28

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participants) had high levels of awareness concerning the prevention of stroke. These results indicate that the awareness concerning the prevention of stroke among young adults is relatively low. Insufficient levels of awareness can delay the diagnosis of the disease, lead to unhealthy behaviors, and increase the risks of the disease.

5. CONCLUSION

According to the results of this study, stroke in young adults is gradually becoming one of the significant public health problems as a result of lifestyle and medical risk factors becoming more common. As per the results of the research, lifestyle and medical risk factors like smoking, drinking, being obese, lack of physical activity, high blood pressure, type 2 diabetes, and heart diseases have a strong effect on the occurrence of strokes in people in the age bracket of 18-45 years. The findings of this study also showed that most strokes occurred among people aged between 36 and 45 years, suggesting the increased vulnerability of young people to stroke risks. It was also found that the knowledge level of the respondents about preventing strokes was moderate to low, implying the necessity of implementing effective preventive measures against strokes in young adults.

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