

Awareness and Attitude of College Students on Stroke and Its Change after the Educational Programme

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Abstract— Introduction: Stroke is one of the leading causes of death and disability in India. Stroke is increasing in young population mainly because of the lifestyle. The objective of the study was to assess awareness and attitude of college students regarding Stroke and the effect of educational programme in changing their awareness and attitude.

Methodology: A one group pretest-posttest study was conducted among 504 college students of selected ten government colleges of Kamrup metro, Assam. Students were selected by using convenience sampling technique. Semi structured questionnaire and 4 points Likert scale were used for measuring awareness and attitude of students towards Stroke which was done by self-report techniques.

Results: Out of 504 responded, majority 457(90.7%) had inadequate awareness, remaining 47(9.3%) had moderately adequate awareness before educational programme and 18 (3.6%) had adequate awareness, 375 (74.4%) had moderately adequate awareness and 111 (22%) had inadequate awareness after educational programme. Majority 475(94.2%) of the responded had moderately favorable attitude, 11 (2.2%) had unfavorable attitude and 18 (3.6%) had favorable attitude before educational programme and 209 (41.5%) responded had favorable attitude, 295 (58.5%) had moderately favorable attitude after educational programme on Stroke. Positive correlation was found between awareness and attitude. Significant association was found between pretest level of awareness with educational qualification of the responded.

Conclusion: Study revealed that college students are not having adequate awareness regarding stroke. Moderately favorable attitude was found. Sensitization and educational programme is the utmost important to prevent and reduce mortality from stroke.

Index Terms— Stroke risk factors, educational programme, warning signs, stroke prevention

I. INTRODUCTION

Stroke is one of the leading causes of death and disability in India. Stroke is having major impact not only on patient, but their caregivers, and community too. Although stroke continues to be a significant cause of morbidity and mortality, the awareness on stroke is still far from satisfactory and many studies revealed this fact. So continuous efforts at

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identification stroke risk and management along with stroke education may help for reducing the impact of stroke.

In India, awareness of the warning symptoms of stroke among the general population is far from satisfactory. This lack of awareness leads to a delay in receiving medical advice from local doctors and a delay in hospitalization, which are setbacks for providing the necessary treatment.¹

According to a study by the Center for Disease Control and Prevention the rate of strokes among young adults has increased significantly in recent years, and some experts said that the increase could be caused by the unhealthy lifestyles led by many college students.² Young adults have many of the risk factors like drug abuse, alcohol abuse, smoking, life style, food habit, head injuries, heart disease, and infections. Some other causes of stroke in the young are linked to genetic diseases.³

There are very scanty studies available on stroke done among students. The investigator has chosen this study to help the students to be aware about stroke. Educating them may help to take preventive measures for themselves, help the family members, their relatives, neighbors and the community as a whole as well as to get treatment at the earliest and save many lives.

The aim of the study was to assess awareness and attitude of college students regarding Stroke and to find out the effect of educational programme in changing their awareness and attitude. The study was based on General System Theory (modified Ludwig Von Bertalanffy 1968).

II. METHODOLOGY

A quantitative research approach with one group pretest-posttest design was adopted for the study. The study was conducted among the college students studying in TDC (Three Years Degree Course) of selected ten government colleges of Kamrup metro, Assam. A convenience sampling technique was used to select 504 students. The tools used were semi structured questionnaire for measuring awareness and 4 points Likert scale for measuring attitude towards Stroke. Data were collected by using self-report techniques. Before proceeding to final study pilot study was done in two colleges among 50 students. After obtaining ethical clearance, data collection was done from January to July 2015 from 10 selected government colleges. The students were selected from Arts, Commerce and Science stream. The purpose of the

study was explained to each participant and consent was taken. The Pretest was conducted for 45 minutes by giving the self-administered questionnaire for awareness and 4 point Likert scale for attitude. Following pretest, the investigator conducted the teaching programme for 45 minutes on Stroke by using power point presentation. Posttest was conducted between seven to ten days of teaching by using the same tools and technique.

III. RESULTS

A. Findings related to Demographic data:

Out of 504 participants, 462(91.7%) participants belonged to ≤ 21 years of age and majority 302 (59.9%) of the participants were female. Most of the participants 261 (51.8%) were studying in TDC 2nd Year and majority 268 (53.2%) were from science stream. Fifty-five (10.9%) participants had history of Stroke in their family, 181 (35.9%) had history of hypertension in their family, 162 (32.1%) had history of Diabetes Mellitus in their family. Majority of participants 180 (35.7%) responded source of information as internet.

B. Findings related to awareness of college students on stroke:

Majority (90.7%) of the students had inadequate awareness and 47 (9.3%) had moderately adequate awareness before educational programme. Majority of the students had inadequate awareness on concept of Stroke (89.1%), Types of Stroke (73.2%), Risk factors of Stroke (96.4%), and Prevention of Stroke (50.2%) except on Warning Signs of Stroke where majority (56.7%) had moderately adequate awareness before educational programme. Out of 504 students 137 (27.18%) rightly responded that Stroke is a disease of Brain and 129 (25.59%) responded correctly the meaning of Stroke.

After educational programme, 18 (3.6%) students had adequate awareness, 375 (74.4%) had moderately adequate awareness and 111 (22%) had inadequate awareness. Majority of the participants had moderately adequate awareness on Concept of Stroke (74.8%), Types of Stroke (59.1%), Risk factors of Stroke (76.1%), Warning Signs of Stroke (72.6%) and Prevention of Stroke (68.3%). Out of 504 participants, 333 (66.07%) rightly responded that Stroke is a disease of Brain and 339 (67.26%) responded correctly the meaning of Stroke.

C. Findings related to attitude of college students towards stroke:

Majority (94.2%) of the students had moderately favorable attitude, 11 (2.2%) had unfavorable attitude and 18 (3.6%) had favorable attitude before educational programme and, 209 (41.5%) students had favourable Attitude, 295 (58.5%) had moderately favourable attitude after educational programme.

D. Findings related to effectiveness of educational programme in changing awareness and attitude of college students:

The mean pretest awareness was 10.06 and SD 2.47, where as in posttest the mean awareness score was 15.35 and SD 2.40. The calculated Z-value was 34.54 whereas P value was 0.00 which is highly significant. So the Null Hypothesis was rejected and research hypothesis was accepted. It indicates that Educational programme was highly effective to increase the awareness on Stroke among the college students.

The mean pretest attitude was 43.41 and SD 4.45, where as in posttest the mean attitude score was 50.77 and SD 4.64. The calculated Z-value was 25.69 where as P value was 0.00 which is highly significant. So the Null Hypothesis was rejected and research hypothesis was accepted. It indicates that the Educational programme was effective to increase the awareness on stroke among the college students.

E. Findings related to Correlation between awareness and attitude of college students on Stroke:

The Correlation was calculated by using Karl Pearson Correlation Coefficient and r value was found as 0.104 with P value 0.020. This indicates that there is significant positive correlation between pretest awareness and pretest attitude. Significant positive correlation was also found between posttest awareness and posttest attitude where r value was 0.297 with P value of 0.000.

F. Findings related to association of awareness and attitude of college students on stroke with selected demographic variables:

In the present study, significant association was found between pretest level of awareness of college students with educational qualification at 0.05 level of significance and no association was found between Pretest awareness with gender, history of Stroke in family history of Hypertension in family and history of Diabetes Mellitus in family of the students. There was no association of pretest attitude with gender, educational qualification, stream of study, history of Stroke in family, history of Hypertension in family and history of Diabetes mellitus in family of the students.

IV. DISCUSSION

The present study was conducted among 504 college students of Kamrup Metro, Assam to assess awareness and attitude regarding Stroke and its change after the Educational programme. The findings of the study are compared with those of other similar studies. There are very scanty studies available conducted on college students related to awareness and attitude on Stroke. The present study findings related to awareness are contrast with the study conducted by Islam S, et al. (2017) in Dhaka University's and Rajshahi University's nursing colleges in Bangladesh, where 144 undergraduate nursing students' awareness of stroke and their stroke patient management behaviors was evaluated. They found that nursing students had a moderate awareness level of stroke risk factors and a very low level awareness of stroke warning signs.⁴

The study findings related to attitude are similar to the findings of study conducted by Borhani HA₂ et al. (2010), among 385 participants between the ages of 15 and 83 years, and found attitude towards stroke risk factors in the general population of Shiraz were adequate.⁵

Limitation of the study: The investigator could not choose the stream and department of the students as it was assigned by the principal of the respective colleges.

Implications: It is high time to take strategic education programme and intervention to make the people more aware about Stroke risk and its prevention. The study motivates the other investigator to conduct further studies regarding prevention of stroke in different settings.

Recommendations for further research: A similar study can be replicated in other settings with different age group. A descriptive study can be done to assess the practices of adults towards prevention of stroke. A descriptive study can be done to identify the risk factors of stroke among the students. A descriptive study can be done to assess the dietary habit of college student with regards to Stroke.

V. CONCLUSION

Accurate knowledge of risk factors and warnings signs, right attitude and practices of Stroke prevention or immediate action that is necessary in dealing with the stroke patient can arrest both mortality and morbidity among the public. The results of this study showed that no one had adequate awareness and only 3.6% college students had favorable attitude on Stroke before educational programme. The intervention improved the participant's awareness and attitude towards stroke. There was positive correlation between awareness and attitude of college students regarding Stroke Significant association was found between pretest awareness of college students with educational qualification. The Result of this study is alarming to the population. As college students are in the period of ardent learner, they are not aware of this disease impact and consequences. The study result is an eye opener to people as ignorance about one of the biggest killer disease leads to more devastating outcome. Conducting more educational programme is essential to sensitize general population.

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