Effectiveness of the structured teaching programme on knowledge regarding care of patient with cerebrovascular accident among care givers

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Abstract
Background: Among the chronic diseases, cerebrovascular accident is the 2nd leading disease. The present study was conducted to evaluate the effectiveness of the structured teaching programme on knowledge regarding care of patient with cerebrovascular accident among care givers.

Materials & Methods: The caregivers of 35 patient with cerebrovascular accident who were admitted in IMS & SUM Hospital, Bhubaneswar in Neurology department of both genders were selected. Instructional module for structured teaching program regarding care of patient with cerebrovascular accident consist of general information about cerebrovascular accident, physiological care includes nutrition, personal hygiene, mobility and communication and psychological care. Audio visual aids like chart, flip chart, pamphlet and booklet were used for this structured teaching programme. Knowledge regarding physiological aspect of care and knowledge regarding psychological aspect of care was recorded.

Results: Age group 21-40 years had 8, 41-60 years had 14 and >60 years had 8 patients. Out of 30 patients, males were 16 and females were 14. Duration of illness was > 6 months in 11 and < 6 months in 19 patients. The difference was non-significant (p > 0.05). The pre-test mean score was 12.40 with the standard deviation 3.19 and post-test mean score was 24.17 with standard deviation 1.9. The paired T test value of 20.54 was statistically significant at p<0.001 level. The difference between the pre-test and post-test level of knowledge was very high and it was statistically significant. Thus, it indicates the effectiveness of structured teaching programme.

Conclusion: The study findings revealed that there was a significant improvement in the level of knowledge after providing structured teaching program.

Keywords: Health, cerebrovascular accident, knowledge

Introduction
Health is the level of functional and/or metabolic efficiency of a living being. In human, it is the general condition of a person in mind, body and spirit, usually mean to being free from illness, injury or pain [1]. The World Health Organization defined health in its broader sense in 1946 as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Generally, the context in which an individual lives is of great importance on health status and quality of life [2]. The main determinants of health include the social and economic environment, the physical environment and the person's individual characteristics and behaviors. Health damaging behaviors particularly tobacco use, lack of physical activity and poor eating habits are major contributors to the leading chronic diseases. A disease is an abnormal condition affecting the body of an organism [3]. It is often considered to be a medical condition associated with specific symptoms and signs. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear [4]. Among the chronic diseases, cerebrovascular accident is the 2nd leading disease [5]. Cerebrovascular accident is sudden death of some brain cells due to lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain. A CVA is also referred as stroke [6]. The present study was conducted to evaluate the effectiveness of the structured teaching programme on knowledge regarding care of patient with cerebrovascular accident among care givers.

Materials & Methods
The present study consisted of caregivers of 35 patient with cerebrovascular accident who...
were admitted in IMS & SUM Hospital, Bhubaneswar in Neurology department of both genders. All gave their written consent to participate in the study. Data such as name, age, gender etc. was recorded. Duration of illness, associated disease, duration of care giving, relationship with the patient, education, occupation, income and marital status was recorded. Instructional module for structured teaching program regarding care of patient with cerebrovascular accident consist of general information about cerebrovascular accident, physiological care includes nutrition, personal hygiene, mobility and communication and psychological care. Audio visual aids like chart, flip chart, pamphlet and booklet were used for this structured teaching programme. Knowledge regarding physiological aspect of care and knowledge regarding psychological aspect of care was recorded. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

### Results

<table>
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<th>Parameters</th>
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<td></td>
<td>41-60 years</td>
<td>14</td>
<td></td>
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<tr>
<td></td>
<td>&gt;60 years</td>
<td>8</td>
<td></td>
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<td>Gender</td>
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<tr>
<td></td>
<td>Female</td>
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<tr>
<td>Duration of illness</td>
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<td>0.75</td>
</tr>
<tr>
<td></td>
<td>&lt;6 months</td>
<td>19</td>
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</table>

Table 1, graph I shows that age group 21-40 years had 8, 41-60 years had 14 and >60 years had 8 patients. Out of 30 patients, males were 16 and females were 14. Duration of illness was >6 months in 11 and <6 months in 19 patients. The difference was non-significant (p>0.05).

Table 2 shows that the pre-test mean score was 12.40 with the standard deviation 3.19 and post-test mean score was 24.17 with standard deviation 1.9. The paired T test value of 20.54 was statistically significant at p<0.001 level. The difference between the pre-test and post-test level of knowledge was very high and it was statistically significant. Thus, it indicates the effectiveness of structured teaching programme.

### Discussion

It was estimated that CVA represented 1.2% of the total deaths in the country, when all ages were included. The proportion of CVA death increased with age and in the oldest group CVA contributed to 2.4% of all deaths. The gender ratio of death due to CVA was 1. CVA is a non-communicable disease of increasing socioeconomic importance in aging populations. According to WHO, CVA was the second commonest cause of worldwide mortality in 2019 and the third commonest cause of mortality in more developed countries. It was responsible for about 4.4 million deaths worldwide. In the recent estimates made in 2019, the number of deaths due to CVA reached 5.54 million worldwide, with two-thirds of these deaths occurring in less developed countries. CVA is also a major cause of long-term disability and has potentially enormous emotional and socioeconomic consequences for patients, their families and health services. The present study was conducted to evaluate the effectiveness of the structured teaching programme on knowledge regarding care of patient with cerebrovascular accident among care givers. We found that age group 21-40 years had 8, 41-60 years had 14 and >60 years had 8 patients. Out of 30 patients, males were 16 and females were 14. Duration of illness was >6 months in 11 and <6 months in 19 patients. Sundin K et al. did a study to illuminate the understanding in communication between formal care providers and patients with stroke and aphasia. Five care providers and three such patients participated in the study. Video recordings were made during conversations about pictures (n=15) and the
care providers were also interviewed (n=15) after the video-recorded conversations. A phenomenological hermeneutic method of interpretation of the interview text was used. The findings showed that a range of conditions for 'understanding and being understood' in the communication on the part of the care providers exists. The condition 'being in understanding' appears in connection with the care providers' creating of a 'calm liturgy of caring' by mediating humility and calm vitality affects to the patients and further, when needed, being present on the level of mystery, i.e. caring communion. We found that the pre-test mean score was 12.40 with the standard deviation 3.19 and post-test mean score was 24.17 with standard deviation 1.9. The difference between the pre-test and post-test level of knowledge was very high. Thus, it indicates the effectiveness of structured teaching programme. Greenland KJ et al. [13] did a study on physician advice, patient actions and health-related quality of life in secondary prevention of stroke through diet and exercise. Out of 51193 participants in the 1999, Behavioural Risk Factor Surveillance System, a state-based telephone survey was assessed using HRQOL Questionnaire Overall, 2.4% of the participants reported a history of stroke. Sixty-one percent of those who reported a history of stroke had been advised to eat fewer high fat or high cholesterol foods and 85.4% of those who had received such advice reported a dietary change compared with 56.0% of those who did not receive such advice. Almost 64% of those who reported a stroke had been advised to exercise more and 76.5% of those who received such advice reported exercising more versus 38.5% of those who did not receive such advice. The study revealed that person with stroke who reported exercising had fewer limited activity days and days when physical health was not good and more healthy days than did persons who did not exercise. Dietary actions were not associated with differences in HRQOL. The limitation of the study is the small sample size.

Conclusion
The study findings revealed that there was a significant improvement in the level of knowledge after providing structured teaching program.

Conflict of Interest
Not available

Financial Support
Not available

References

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