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Family Nursing Care for Cerebrovascular Accident (CVA) Patients: A Case Report

Eko Prayitno [1*]
[1*]Indonesian National Nurses Association, Blitar, Indonesia
Email: ekoprayitno663@gmail.com

ABSTRACT

Cerebrovascular Accident is a neurological deficit disease caused by bleeding or blockage with symptoms and signs according to the affected part of the brain, which can cause disability or death. The assessment found several complaints in the form of weakness of the extremities, not taking medication regularly, and the family did not know the care for family members with CVA. The nursing diagnosis in CVA patients is impaired physical mobility, ineffective family health management, and readiness to increase knowledge. The interventions determined for CVA patients are based on the previous diagnosis and theory. The implementation carried out on CVA patients is based on the previously determined interventions and is adjusted to the conditions and situations of the patient. Evaluation of CVA patients during two meetings found that the problem of ineffective family health management nursing was resolved, the problem of readiness to increase knowledge was resolved, and the problem of impaired physical mobility nursing was partially resolved due to time constraints in implementing it.

Keywords: Family Nursing Care, CVA

Background

Cerebrovascular Accident (CVA) is a disease that has various impacts on patients and families, both in terms of health, economy, mental, and emotional, which disrupts the productivity of other family members (2). The patient's family plays a massive role in this recovery stage, so from the beginning of treatment, the family is expected to be involved in handling Cerebrovascular Accident (CVA) patients. Cerebrovascular Accident (CVA) patients will need help in fulfilling daily living activities (ADL); the family, as someone close to the patient, plays a significant role in providing follow-up care and meeting the patient's self-care needs. The treatment of Cerebrovascular Accident (CVA) requires a lengthy recovery period, and patients often need assistance with activities of daily living (ADL). As a result, families may struggle to provide optimal care for CVA patients (3). Good handling of Cerebrovascular Accidents (CVA) will ease the burden on patients and reduce dependence on others in carrying out activities (4). Here, the role of the Health Center is to provide promotive, preventive and rehabilitative efforts for CVA sufferers in their work area; as a regional nurse as the spearhead of the success of these efforts, they must also be active in these efforts.

According to data from the World Stroke Organization, there are 13.7 million new cases of CVA every year and around 5.5 million deaths due to CVA in the world (5). The prevalence of CVA in Indonesia in 2018 was 10.9% and increased by 3.9% in the last five years. The prevalence of CVA in East Java in 2018 was ranked 7th out of 34 provinces in Indonesia at 12%, or reaching 471,480 people (6). Based on data obtained at the Srengat Health Center in 2024, the number of patients diagnosed with Cerebrovascular Accident (CVA) was 890 people. Cerebrovascular Accident (CVA) is a disease that causes brain damage and appears suddenly,

progressively and quickly due to non-traumatic brain blood circulation disorders. CVA risk factors can be categorized into modifiable factors, such as hypertension, smoking, diet, and activity and non-modifiable risk factors, including age, gender, and race or ethnicity (7). Disorders that arise due to CVA cause various symptoms, including paralysis of one side of the face or limbs, unclear speech, changes in consciousness, and other symptoms according to the affected part of the brain (8). The diverse symptoms resulting from Cerebrovascular Accident (CVA) inevitably lead to a range of challenges for both patients and their families. These conditions often result in self-care deficits or dependence on others, necessitating ongoing nursing support to help patients gradually regain the ability to perform daily activities independently (9).

Inappropriate treatment for patients with CVA will result in muscle weakness that will gradually decrease and will cause disability. The problem for families with Cerebrovascular Accident (CVA) patients is care. Patients with Cerebrovascular Accident (CVA) usually experience disturbances in fulfilling daily living activities (ADL) due to the disability. Patients with Cerebrovascular Accident (CVA) often rely entirely on family members to assist with activities of daily living (ADL). When these basic needs are not adequately met, it can significantly impact the patient's overall quality of life. Moreover, the prolonged CVA treatment imposes financial burdens on families, which can hinder access to appropriate and continuous care, resulting in many patients not receiving the optimal treatment they require. The problem of the level of family knowledge regarding the daily living activities (ADL) of family members suffering from Cerebrovascular Accidents (CVA) requires the role of nurses to overcome these problems by providing comprehensive nursing care through existing nursing actions related to fulfilling daily living activities (ADL) (3).

Based on the issues outlined in the preceding discussion, the author is motivated to compile a report entitled 'Family Nursing Care for Patients with Cerebrovascular Accident (CVA) in the Working Area of UPT Puskesmas Srengat.' This report aims to describe the implementation of family nursing care for CVA patients, with the goal of contributing to the development of knowledge and practices in family-centered nursing care for individuals affected by CVA.

Results

Health services provided by the Srengat Health Center from the promotive and preventive service sector are toddler health posts, elderly health posts, mental health posts, adolescent health posts, non-communicable diseases health posts, Prolanis, school children's health screening, counselling, Mother and children health (KIA) Program services, Family Planning (KB), Nutrition, disease control, Health promotion, etc. In family care efforts, home visits are needed to screen for existing diseases and as an effort to improve family health. Here, the author works with the holders of the Perkesmas Program and the elderly program to find targets for nursing care. The Perkesmas and elderly programs are expected to increase the number of targets in screening efforts for diseases such as hypertension, Diabetes Mellitus, CVA, Pulmonary TB, Decompensated cordis and others.

The nursing assessment of four families with Cerebrovascular Accident (CVA) patients revealed variations in family structure, socioeconomic status, and recreational activities. The types of families involved include three-generation families, single-parent families, nuclear families, and extended families. Socioeconomic conditions ranged from moderate to good, with two families relying entirely on financial support from their children, while the other two had independent sources of income. Recreational activities were generally simple, with all families identifying television viewing as the primary form of entertainment and some engaging in additional activities such as visiting nearby tourist spots or socializing with neighbours. These differences may influence the families' ability to provide optimal support for CVA patients.

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All four families are currently in the late adulthood stage of family development. However, two families (Ny. P and Tn. N) have not fully completed the previous stage, as their children remain unmarried and still live at home. In terms of health history, all core family members have a history of CVA and hypertension, with varying levels of treatment adherence. Patients in the families of Tn. S, Ny. P, and Tn. S2 is not consistent in taking medication or attending health check-ups, often due to negative perceptions of treatment effectiveness. In contrast, the patient in the Tn. N's family follows a regular medication routine. These differences in developmental stages and treatment adherence may affect the quality of care provided to CVA patients.

The four families in the cases live in permanent homes with varying sizes (72m² to 120m²), featuring tile roofs, ceilings, ceramic floors, and similar layouts, including a living room, bedrooms, family room, kitchen, bathroom, and garage. None of the homes have a yard; all use “leher angsa” type WC with a septic tank about 10 meters away. Ventilation and lighting are adequate in most cases, with good conditions in some. All families maintain positive interactions with their local communities, indicating good social engagement. These environmental and social conditions can influence patient care and family support.

The four families exhibit similar communication patterns, primarily verbal and two-way, using the Javanese language. Regarding family decision-making, the head of the family makes decisions after consulting with other members: Tn. S in Case 1, Ny. P in Case 2, Tn. S in Case 3, and Tn. N in Case 4. The structure of family roles is appropriate in Cases 1, 3, and 4, but in Cases 2, Ny. P assumes the role of head of the family after her husband’s death, with her children contributing financially. Family values and norms are upheld consistently in all cases.

The family functions in the four cases show close and strong relationships among members. Each family maintains good communication and emotional bonds, with families accepting losses, such as the death of a spouse or child leaving for marriage. All families have positive social interactions with neighbours and practice good parenting. Regarding healthcare, the families display varying adherence to medical care: Ny. K, NY. P, and Tn. S show irregular medication use and dietary habits, such as consuming salty or fried foods, while Ny. N follows a more disciplined routine, including regular medication and dietary changes. All families provide reproductive care, with women having reached menopause at varying ages.

The families face both short-term and long-term stressors. For Tn. S’s family, the long-term stressor is worrying about Ny. K’s illness. Ny. P’s family experiences short-term stress due to missing her deceased husband and long-term stress about her health worsening. Tn. S’s family fears financial insecurity and worsening illness. Tn. N’s family faces no significant stressors. Families cope by regularly visiting healthcare services, praying, and accepting life’s challenges. Problem-solving is typically done through family discussions, where all members collaborate to find solutions. These coping strategies help families manage stress and maintain resilience.

The physical examination of family members reveals varied health conditions. Tn. S shows no complaints, while Ny. K and Ny. P struggle with limited mobility in their left limbs due to CVA, with muscle strength ranging from 2 to 5. Tn. S’s and Ny. N’s muscle strength is normal in some limbs but weak in others, and they have a restricted range of motion. Ny. N also experiences limited mobility in both arms and legs. Families, including those of Tn. S, NY. P, and Tn. N desires a better understanding of CVA and to seek proper treatment and prevention to avoid disease progression. They hope for recovery and better health outcomes.

The family nursing diagnoses include physical mobility issues due to muscle weakness and ineffective health management related to the complexity of care (10). The interventions focus on supporting ambulation, teaching range of motion (ROM) exercises, and providing health education. Specific actions include assessing muscle strength, ROM, and the patient’s exercise ability, teaching active or passive ROM, and encouraging early mobilization.

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Education on CVA, risk factors, and proper diet is provided, with the family also learning how to assist with activities of daily living (ADLs). Evaluation shows partial progress, with improvements in muscle strength, ROM, and family understanding of CVA. Medication adherence and dietary changes were also achieved (11,12).

Discussion

Analysis of Family Nursing Assessment in Cerebrovascular Accident (CVA) Patients

The environmental conditions around the family's residence are urban, but cooperation between neighbours is still maintained. Social support for families with various types of families functions as an influence in carrying out habits. If a community is good at maintaining its health, then all community members in that environment also have good health levels. In addition, the community's social support is a source of information to improve family health (13).

The structure of the 4 families is carried out well, and decisions are made based on the opinions of all family members. The coping and stress mechanisms of the four families also obtained good results; if there is a problem, all family members are involved. The function of the family in maintaining health is not good because three families are still unable to care for sick family members. However, the three families are willing to be given health education related to CVA. If a family can agree to make decisions, then when facing problems, they will resolve them satisfactorily. The nursing care process will run well if all family members agree to carry out nursing care (13).

Research conducted by Puspitasari stated that hypertension is the leading risk factor for the occurrence of Cerebrovascular Accident (CVA). As many as 100% of CVA patients had a history of hypertension. Hypertension leads to increased peripheral blood pressure, resulting in poor hemodynamic systems and thickening of blood vessels, which ultimately causes CVA. The stroke duration is unrelated to its triggering factor, hypertension because each individual has different vascular characteristics. In addition to the type of food consumed, another risk factor that influences the occurrence of CVA is the habit of smoking. This habit can lead to the formation of atherosclerotic plaques, which over time cause blockages in the blood vessels, eventually resulting in a CVA (14).

Based on previous research, it was found that family support is strongly associated with patients' medication adherence. Family support is assistance provided by other family members that offers physical and psychological comfort to individuals facing stressful situations. Families need to carry out their roles effectively to impact members experiencing health problems positively. Therefore, it can be concluded that family support significantly influences patients' adherence to taking medication (15). According to research conducted by Sukma et al., in addition to family support, factors such as education level, beliefs, and motivation also affect medication adherence in individuals with hypertension (16).

The role of the family is significant in preventing and treating sick family members, so each family member needs to be able to recognize health problems in their family; the family must be able to decide on the proper action when a family member is sick and utilize health facilities (17).

Analysis of Family Nursing Diagnoses in Patients with Cerebrovascular Accident (CVA)

Based on the scoring results conducted on four families, it was found that the priority nursing problem among all four families was similar, namely Impaired Physical Mobility. A common and most feared issue experienced by patients with Cerebrovascular Accident (CVA) is impaired physical mobility. CVA occurs due to a blockage in the blood flow to the brain, which is caused by a blood clot in the major arteries of the cerebral circulation. The cerebrum is part of the central nervous system that controls and initiates movement in the

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neuromusculoskeletal system. Therefore, the neuromusculoskeletal system is disrupted when a blockage occurs in the cerebral blood flow. Clinically, the most common symptom is hemiparesis. Thus, it can be concluded that the nursing diagnoses that emerged align with existing theories (18).

According to the Indonesian Nursing Diagnosis Standards (SDKI), Ineffective Family Health Management refers to an unsatisfactory pattern of handling health problems within the family that fails to restore the health condition of a family member (19). The family plays a crucial role in maintaining health quality, especially in families with elderly members. Families have the roles and functions of caring for each other and creating a balance in health status, including health maintenance (20). Therefore, this explanation aligns with the theory that a possible nursing diagnosis for families with a CVA patient is Ineffective Family Health Management. Additionally, this diagnosis can emerge due to the alignment between the assessment results and the major and minor data outlined in the SDKI.

Analysis of Family Nursing Interventions in Patients with Cerebrovascular Accident (CVA)

Mobilization support involves facilitating the patient's increase in physical movement activity, while ambulation support refers to assisting the patient in moving from one place to another. Mobilization can help prevent pressure ulcers and decrease lung vital capacity in CVA patients, whereas ambulation is intended to maintain or restore both autonomic and voluntary body functions during treatment and recovery from the illness (21). Therefore, the selected interventions are appropriate based on the presented theory and the patient's condition.

Another intervention provided was health education related to CVA, which was given to all four families with a CVA patient. Providing health education to families affected by CVA is crucial in improving healthcare services. Educating families is necessary to motivate patients to change their daily lifestyles (22). Hence, it can be concluded that health education is essential for families of CVA patients to enhance the quality of life of the affected family members.

Analysis of Family Nursing Implementation in Patients with Cerebrovascular Accident (CVA)

Range of Motion (ROM) exercises are a form of rehabilitation training that is considered quite effective in preventing disability in stroke patients. This exercise is one of the fundamental nursing interventions that can be implemented to support the success of a therapeutic regimen aiming to prevent permanent disability in stroke patients. It helps reduce the patient's dependency on family members, boosts self-esteem, and enhances coping mechanisms (23).

Therefore, implementing both active and passive ROM exercises for families with CVA patients who experience impaired physical mobility is crucial to prevent further complications such as permanent disability and pressure ulcers.

Health education for families about CVA (Cerebrovascular Accident) is conducted through lectures and discussions using illustrated leaflets. This method provides opportunities for patients and families to ask questions, explains the risk factors that can worsen the patient's CVA condition, teaches patients about proper dieting, encourages patients to take medication regularly, and motivates families to make good use of healthcare services. Previous research has shown that educating patients and their families significantly impacts the quality of healthcare for sick family members and influences the patient's adherence to prescribed medications (24).

Analysis of Family Nursing Evaluation in Patients with Cerebrovascular Accident (CVA)

After the implementation of nursing, the researcher conducted an evaluation on families

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with Cerebrovascular Accident (CVA) to see whether the nursing problem had been resolved, partially resolved, or not resolved. The evaluation used the SOAP format (Subjective, Objective, Analysis, and Planning).

The ROM (Range of Motion) exercises effectively increase muscle strength when performed twice daily, every morning and evening, for 14–35 minutes, with each movement repeated four times. The exercise duration should be extended to at least four weeks, or one month, to observe its effectiveness (25). Based on this theory, it can be concluded that the nursing problem in the patient was only partially resolved after implementing ROM exercises due to the short implementation time and evaluation, which was only conducted over two sessions.

The evaluation of Mr. S2's family showed that his wife could not care for him frequently due to work obligations. The researcher suggested that other family members (specifically his child who does not live in the same house) take a more active role in caring for the mother, who suffers from CVA and coordinate with elderly posyandu (integrated health service post) cadres for routine home visits. The complex care required by CVA patients demands continuous and consistent treatment to improve their capabilities or independence. Family support greatly influences the recovery of a family member with an illness (26).

Previous studies have shown that health education can increase family knowledge in managing diseases affecting family members—such as controlling risk factors and supporting medication adherence (27). Based on the evaluation table after the implementation, it was found that the nursing problems of ineffective family health management were resolved in three families, and the issue of readiness to improve knowledge was resolved in one family. Thus, it can be concluded that the evaluation results show that nursing problems were addressed following implementation, which aligns with the existing theory.

Conclusions and Recommendations

The assessment revealed that most families are in the elderly development stage and have members with CVA. Some families struggle to understand the health issues their members face and fail to implement proper care or reduce risk factors. Priority diagnoses include impaired physical mobility, ineffective health management, and readiness to increase knowledge. The planned interventions aligned with the patient's issues, and implementation was adjusted to family circumstances. The evaluation showed improvements, though the limited time affected the full resolution of impaired mobility.

This report hopes to enhance the understanding of care and quality of life for CVA families and patients. For nurses, it serves as a guide for home visits and enhances nursing care skills. Educational institutions are encouraged to expand community practice for students, providing more exposure to family nursing care related to CVA.

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