

# Home visits in brain tumor patient: how nurse and family members cooperate in tumor patient's family self-care

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**Purposes:** We reported the roles and functions of nurses in home visits for brain tumor patients using the family health assessment guide in the study.

**Methods:** One patient of brain glioma was chosen as the case illustration. The nurses assessed the patients' situation, their families and living environment individually. All these factors were analyzed together.

**Results:** The nurses then implemented their knowledge and skills to adopt different measures in different conditions, investigated the patients' health problems and carried out personalized effective actions.

**Conclusions:** Nurses should put effort into community nursing to allow patients to live in a safe environment, to satisfy the health needs of human being and their needs for health knowledge, and enhance their self-care abilities.

**Keywords:** Home visits; family care; brain tumor



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## Introduction

Glioma is the most common primary malignant tumor in the central nervous system. It occurs mainly in people aged 30-60 years old. Gliomas are malignant brain tumors and they are classified into WHO grade I-IV. WHO grade I gliomas are low grade brain tumors, while WHO grade IV gliomas are the most malignant brain tumors. Recurrence rate after surgery is high, and the loss of brain function will be obvious during tumor progression, which affecting patients' life qualities.

Helping patients and their family members to build up healthy behavioral habits and lifestyles is important for meeting their needs for community healthcare services. Home visits enables active involvement of patients and their family members, performance of well-targeted assessment, provision of emotional support, psychological counseling and health education (1). It also strengthens the patients' self-care ability, awareness of home environment safety and extent of functional rehabilitation, thus the postoperative

patients' quality of life could be improved. As a result, home care and community nursing would become an essential part for delay of disease progression and improvement of patients' quality of life.

With the changing of medical model, the focus of nursing work has shifted from disease treatment to patient-centered care (2). Provision of comprehensive and all-round service from hospital to hospital patients is essential for satisfying their human health needs (3).

The family shapes each individual and no family exists independently. In society, family certainly plays an important role. Therefore, when nurses are able to evaluate family, they would diagnose the patients and their families appropriately, and take the proper nursing measures (4). Hence nurses are the main professionals who carry out community health education (5). In order to provide excellent nursing service, implement holistic primary nursing, promote individualized health education activities, we launched continuous nursing services by home visits at

the Neurosurgery Department of Huashan Hospital, Fudan University, Shanghai. Within one week after discharge from hospital, primary nurses conduct telephone follow-ups or home visits in groups of two. They act as professional advisers to further provide health care for patients. This study illustrates in details how continuous nursing services are carried out in brain tumor patients.

## Patient and materials

### *Family situation*

It's a middle-class family with three members. The husband is 43 years old and healthy. He owned a barber shop in the residential area in the past three years. He is gentle with good workmanship and the business was good. He loves his wife and son. Mrs Wu (the patient in our study) is 46 years old, and works as a nurse in the department of epidemiology at a large hospital for about 20 years. She works hard and is a healthy lady. The son is a student of the junior high school.

It was a fall morning. After finishing a night shift, Mrs Wu fell off her bicycle on the way home. She was sent to the hospital for examination. The head CT scan showed an intracranial tumor, and she was hospitalized for further evaluation and treatment.

Mrs Wu recalled, she heard someone call her, and she turned around, then fell off. She complained she always had the same symptom recently. She was diagnosed of temporal glioma after expert consultation. The neurosurgeon removed the tumor for her, and tumor pathology was glioblastoma multiforme (GBM, WHO IV), which is the most malignant glioma subtype. She received radiotherapy and chemotherapy after surgery. But the tumor was relapsed seven months later, and she underwent second operation. Then her physical condition deteriorated, she suffered from hair loss, paralysis, and vision decrease in recent years. She is now too weak to take care of herself. Thus, her husband closes the barber shop and takes care of her. But the economic burden is too much because of limited family income.

### *Family housing*

They moved to a new apartment in a new residential area in Pudong, Shanghai due to the municipal reconstruction of the old place. The new apartment is on the second floor with simple decoration because of their economic difficulty, and the furniture is old but clean.

There is green coverage with nearby subway and bus

stations, and there are no industrial factories around the area. Moreover, there are some supporting facilities such as hospital, car parks and shopping market. Primary and secondary schools and police station are also not far from their home.

### *Family organization*

In the past, family decisions were usually made after member discussion, and Mrs Wu did the housework. But now, Wu's husband mainly did the family decisions.

The communication between parents and the son was well. Sometimes Mrs Wu may spoil her child. But the boy didn't have bad friends in the school.

The role of each family member is accepted by others. Before Mrs. Wu was sick, she took care of her son and taught him. Her husband also took the responsibility to play with him and taught him swimming.

Currently, the main focus of the family was Mrs. Wu's health. Sometimes Mrs. Wu could feel better, which is positive for the whole family's motivation.

## Results

### *Family function*

#### **Criteria for self-care of family members**

**Air:** there is no bad smell both indoors and outdoors. Mrs Wu's husband is a non-smoker. There is nothing that could affect the air quality. **Food:** Mrs Wu worked three shifts in the hospital before she was ill, and her husband managed the barber shop himself. Their lunches at workplace were simple snacks. In the evening, they sometimes bought food because their son would have dinner at home. But now her husband buys food and cooks for her, such as chicken soup, special veg meals and non-veg meals. **Drinking water:** in the past five years, they bought the drinking water and the cost is 14 RMB/barrel of 19 L. The household water is tap water. **Family health:** the family holds good habits. Mrs Wu goes to the toilet with the help of her husband. The home waste is put into bags and disposed off by residential garbage collection. **Activity:** Mrs Wu mainly takes activities at home. Sometime she enjoys sunshine in the balcony. They go to hospital by taxi.

#### **To promote the development of family members' personalities and to meet the members' psychological and social needs**

**Alone:** Mrs Wu lives in a separate room. After school, her

**Table 1** Assessment of self-care inadequacy: anxiety

Problem analysis	Self-care inadequacy: knowledge, skills, motivation and humanity social factors	Target	Measures	Appraisal
Before operation, the patient had good appearance and like fashion. Now the patient is almost blind. She has hair loss and paralysis. Her life relies on the little income. The patient could not accept the life changes and has suicidal ideas	<p>Knowledge: the patient completed secondary education, and her husband is a barber with junior high school education. He has little knowledge about neurosurgery and psychiatric counseling;</p> <p>Skills: the husband and the son always comfort the patient;</p> <p>Motivation: the husband knows the thought of the patient, always cares about her condition and mental changes. He asks the doctor if the condition could be improved. The son is too young to know this;</p> <p>Humanity social factors: the husband has no experience of caregiving, but he is proactive to take care of his wife</p>	The patient could face the changes in appearance, live optimistically, and reduce complaints about self-image	<p>Frequently visit the patient as her listener and encourage her to express her feelings;</p> <p>Listen to and encourage the patient to express the feelings of her physical and lifestyle changes;</p> <p>Give a hand for the patient's change in appearance, such as providing wigs, etc.;</p> <p>Encourage the patient to take part in some social activities with the assistance from her husband;</p> <p>Further encourage her husband and son to give more help and love to the patient</p>	The patient could accept the reality, have stable mood and go outdoors sometimes

son goes to her room and talks to her. Social interaction: Mrs Wu began to believe in Buddhist and went to temple twice per month after she was ill. Sometimes she asked her husband to go there for her. She said her life was saved by the Buddha. She had little social activities. Personal development for family members: the son knows his mother is sick and his father should take care of his mother. Thus he should study hard by himself. Family relationship: Mrs Wu and her husband lived happy for several years. They have good relationships and they care for each other. But her husband is desperate when she is sick at home. Behavioral control: there were no bad behaviors in the family members (6). If they feel uncomfortable, they will go to hospital in time. Cognitive development: their knowledge was mainly acquired from TV and radio. Sometimes her husband seeks help from the hospital for family healthcare knowledge.

**Risk prevention**

The real situation of family self-care: there was no accident for the family. Mrs Wu was a nurse, and she used medicine for her own and family members' disease. Her husband also goes to hospital for routine check-up. Thermos and other dangerous objects are kept in safe places at home and nothing was placed bedside. The situation of preventive health measures: they live on the second floor, so there was

a great disturbance of mosquitoes and flies. Last year, they installed screen windows and screen doors in order to avoid the pests. The son received vaccination in school.

*The ability of adaptability*

Mrs Wu could not accept the sudden attack of the disease at first. She cried when she was admitted for the operation, and even had suicidal thoughts. Her husband even didn't know what to do at that time. After operation, her colleagues helped her family to get through the hard times.

*Health situation and cognition*

The family members have insufficient knowledge and skills of taking care of Mrs Wu, and they seek for the support for body movement and skin integrity.

After home visits, we found Mrs. Wu has health problems. Knowledge, skills, motivation and human social factors of the main problems were assessed. The details are as follows: Mrs Wu was anxious about the sudden change of her life. Before surgery, she was beautiful and fashion. Now she is almost blind, hair loss and paralysis. Her husband has no income. The family is only supported by her small incomes (see *Table 1*). Mrs Wu has impaired physical mobility. Her daily life depends on her husband. If her

**Table 2** Assessment of self-care inadequacy: impaired physical mobility and risk of impaired skin integrity

Problem analysis	Self-care inadequacy: knowledge, skills, motivation and humanity social factors	Target	Measures	Appraisal
The patient has paralysis, so she asked her husband to go to the temple for pray	Knowledge: the patient is an experienced nurse who knows the importance of the body movement. However, her husband doesn't know; Skills: the husband helps her to do flexion and extension exercise of the foot; Motivation: comfort the patient to live strongly. Avoid dangerous items at bedside; Humanity social factors: the husband doesn't work and takes care of his wife, so she relies on him physically and psychologically	The patient could do indoor exercise in the room, self-care, and keep body movement. Absence of lower limb muscle atrophy and sagging	Assess lower extremity muscle strength grade, and plan activity according to the status; Assist her while doing flexion and extension exercise of the foot. 10 times per set and 2 sets each day. This could stimulate muscles and improve circulation. It also could decrease osteoporosis and disuse muscle atrophy; Place the feet in functional position	The patient could tell the advantages of body movement, and complete the activity as planned. There is no lower limb muscle atrophy and sagging
The patient has paralysis of one side limb. She needs her husband to help her with daily life to maintain skin integrity	Knowledge: patient and family members know the importance of maintaining skin integrity; Skills: the husband helps her to turn over and does massage; Motivation: the husband retires from work, and takes care of the wife whole-heartedly; Humanity social factors: the patient is a medical staff. The family members could help the patient correctly and keep skin integrity, under the standard guidance of the patient and the visiting nurse	The patient could maintain skin integrity. There is no impairment in buttocks, foot and ankle	Help the patient to turn over every 2 hours; Massage buttocks, foot and ankle 2 or 3 times each day, every time 10 minutes; Keep the sheet neat and dry; Provide good nutrition: 2 eggs, one bottle of milk and half catty of vegetables	Absence of impaired skin integrity

husband goes out, the risk exists for her. Her skin integrity is impaired. She has to stay in bed because of paralysis. Skin rash sometimes occurs (see *Table 2*). Moreover, Mrs Wu is suffering from her disability of housekeeping skills. She could not live without her husband. There is insufficient money for house refurbishment. She was worried about her son's study and health (see *Table 3*).

### *Evaluation of family self-care and demand*

If the patients need some advices, the nurses would provide the information and educate them (7). In this case, the patient could not take care of herself after discharge. She needs help from her family members and community nurses. The nurses could help the family in the following aspects, providing family education and evaluation based on the health problem, shortage of skills and knowledge for caregiving (*Tables 1-3*). Considering Mrs Wu's demands

and benefits, caregivers of the family may be overburdened. Therefore, every means should be tried to decrease their burdens (8). As a result, with the health education and instructions from the visiting nurses, Mrs Wu and her family showed good progression in their self-care abilities (see *Tables 1-3*).

### **Discussion**

The holistic nursing care should include health education (9). According to the family health assessment guide, the community nurses should encourage patients to take part in. When assessing the subjects and their families or living environment, nurses should be well-prepared, pay attention to the way of inquire and listen carefully. When evaluating the patient and his family or environment factor, a complete integrated understanding of the health problems of the patient and his family is required. Furthermore, they should

**Table 3** Assessment of self-care inadequacy: disability in housework

Problem analysis	Self-care inadequacy: knowledge, skills, motivation and humanity social factors	Target	Measures	Appraisal
The patient is took care by her husband; There is insufficient money for refurbishment of new house; Her son studies from morning to evening. She is worried about her son	Knowledge: the patient knows there is not enough income due to her sick, and she is concerned about the education fee of her son; Skills: the husband buys food of good quality and reasonable price in the market every day; Motivation: her husband feels severe fatigue because of her stay at home; Humanity social factors: she trusts Buddhism and is happy about visiting	Establish the courage in life, stop complaining and show care to her son and husband. Restore her previous role in the family	Frequently visit the patient and talk to her about the family, her son, life, economy and self-respect, etc.; Encourage the son to talk to his mother about his school life, in order to reveal his eagerness for mother's love; Encourage the husband to talk with patient and always communicate with her; Arrange some family activities during holidays; Apply for economic support	The patient could tell the function of different roles of her family

look for the potential risk factors among the patient and the family members (10).

Home environment is the place of choice for Chinese to recuperate. Assessment and instruction of home environment safety is essential for the home care of postoperative glioma patients. This not only requires attentions from nurses, but also efforts from their families. During the home visits of this patient, nurses improved the family members' roles and functions continuously. With cognitive education and behavioral intervention (11), the nurses performed health education and instructions according to the inadequacy of the patient and her family members. The patient's family members looked after her whole-heartedly. They learned about the skills of repositioning and nursing safety (12), thus the patient could receive standard nursing care at home. Community medicine plays an important role in healthcare. It minimizes the impact of disability on the patients' lives, maximizes their residual functions, improves their life qualities and restores their roles and functions in family and society (13). This could serve as an example of excellent nursing. As reported by Oeramman, indicators of excellent nursing include care and concern, professionalism, patient education of professional nursing, and improvement of patients' quality of life.

In this case, owing to the long course and fluctuation of the disease, the visiting nurses adopted different roles in different conditions: caregiver, educator, consultant, and observer. They carried out individualized effective actions. With continuous deepening of health education, patient's

quality of life could be improved. The active participation of the patient's family brought a hope for the prognosis. Social harmony increased the social recognition for nursing work, and upgraded the value of nurses.

In conclusion, nurses should put effort into community nursing (14) in order to allow patients to live in a safe environment, to satisfy the health needs of human being and their needs for health knowledge, and enhance their self-care abilities, which could further extend the intension of nursing care and bring it closer to society (15).

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