EXPERIENCE OF HOME HEALTH CARE WITH THAI TRADITIONAL MEDICINE FOR PARESIS AND PARALYSIS IN THAILAND

Paiboon Chaosuansreecharoen and Kannika Ruangdej

Sirindhorn College of Public Health, Yala

The objective of this paper is to share knowledge and experiences for Paresis and Paralysis Patients in Thailand. At present, Public Health College, Nurse College, and relevant organizations realize how important home health care is; consequently, home health care services are integrated in the curriculum for health science students in Thailand. Moreover, Sirindhorn College of Public Health, Yala has already put the topic of home health care in the curriculum for Thai Traditional Medicine. Students used “INHOMESSSS Framework” (standing for: immobility, nutrition, housing, others, medication, examination, safety, spirituality, and services) for the evaluation of a patient's functional status and home environment. Then, students practically proposed and implemented home health care on Thai Traditional Medicine for paresis and paralysis patients. First case of patient, she had right hemiparesis, pressure sore grade 1, and muscle pain. Students did stretching exercise and herbal hot compression for muscle rehabilitation. They taught family how to do exercise and appropriate position for patient. They did balloon mattress to relief pressure sore. Second case of patient, she had lower limbs paresis. Students did pulley exercise for muscle exercise. Third case, she has left hemiplegia. Students did hand exercise for muscle rehabilitation. Forth case, he had right hemiplegia. Students did seesaw board exercise equipment for muscle rehabilitation. In addition, they taught patient to do Thai self massage. Fifth case, he had lower limbs paralysis. Students did pulley exercise equipment for muscle rehabilitation. Based on this study, students learnt how to evaluate and how to take care paresis/paralysis at home. For patient side, patient needs regular visits and instructions while the complicated ones need more sophisticated care. Thai traditional medicine is one method can be used for taking care paralysis patient. In addition, we should do more research to develop the most suitable and effective home health care with Thai traditional medicine to yield the best benefits to the paresis and paralysis patients.

Keywords: Home health care, Thai traditional medicine, Paresis and Paralysis.

Introduction

Paresis/paralysis is referred to cerebral blood vessel disease or stroke. Paresis or paralysis causes insensibility, weakness and/or loss of functionality of a limb or the whole body. Patients may become unconscious or even die (Singhpoo et al., 2009). The paralysis or weakness may affect only the face, an arm, or a leg or may affect one entire side of the body and face. A person who suffers a stroke in the left hemisphere of the brain will show right-sided paralysis or paresis. Conversely, a person with a stroke in the right hemisphere of the brain will show deficits on the left side of the body. The World Health Organization (WHO) definition of stroke is: “rapidly developing clinical signs of focal (or global)
disturbance of cerebral function, with symptoms lasting 24 hours or longer or leading to death, with no apparent cause other than of vascular origin” (WHO MONICA Project Investigators, 1988).

There are many risk factors for stroke including: inherent biological traits such as age and sex, physiological characteristics that predict future occurrence such as high blood pressure, serum cholesterol, fibrinogen; behaviors such as smoking, diet, alcohol consumption, physical inactivity; social characteristics such as education, social class and ethnicity; and environmental factors that may be physical (temperature, altitude), geographical, or psychosocial (Marmot & Poulter, 1992). However, blood pressure and tobacco use are the two most important modifiable risk factors for stroke due to their strong associations, high prevalence and the possibility for intervention. Based on epidemiological research, the high blood pressure is the single most important risk factor for stroke with a population attributable risk of 50% (Dunbabin & Sandercock, 1990). The risk of stroke rises steadily as blood pressure level rises and doubles for every 7.5 mm Hg increment in diastolic blood pressure, with no lower threshold. Treatment with anti-hypertensive treatment has been shown to reduce stroke risk by about 38% (Singh et al., 2000; Eastern Stroke and Coronary heart Disease Collaborative Group, 1998). While tobacco use increases the risk of hemorrhagic stroke about two-fold (Singh, 2000).

The high incidence and prevalence of stroke currently have been reported a major impact in the developing world, especially in the Asian region (Lui & Mackenzie, 1999; Mak, Mackenzie, & Lui, 2007; Pouangvarin, 2001). In Thailand, the Ministry of Public Health of Thailand noted that stroke was the nation’s first leading cause of death in 2009 with the stroke mortality rate sharply increasing annually from 2008 to 2010: 20.8, 21.1, and 27.5 per 100,000 respectively (Thailand Ministry of Public Health, 2013). Stroke incidence tends to be accelerating rapidly and increasing among older people, with one study indicating that 1.7% of the people aged 50 and over in Thailand had problems related to stroke (Choprapawon et al., 1998).

Stroke is a chronic disease that requires treatment at all stages from onset through progression, emergence of complications, through to the bed-ridden stage (Singhpoo et al., 2009). It has been shown to be a major cause of death and disability in all societies (Rodgers et al., 2004; The European Stroke Initiative (EUSI) executive committee and the EUSI writing committee, 2003; Truelsen et al., 2006). The paralysis/paresis leads to loss of ability to perform daily routines including: walking, communication difficulties, digestive problems (chewing, and swallowing problems), and elimination problems (Mole & Baker, 1991). Beside those physical problems, paralysis or paresis causes loss of income and increased expenses both for treatment at hospital and long-term care (Department of Disease Control, Ministry of Health, 2007; Department of Disease Control, Ministry of Health, 2007). Thus, it can concludes that stroke leaves many paralysis or paresis survivors with enormous physical, psychological, emotional, social, and spiritual health disabilities due to neurological impairments which can be permanent and progressive (Jullamate et al., n.d.). Many research on paralysis/paresis survivor revealed that rehabilitation in the home could be an effective alternative to more costly inpatient rehabilitation services (Anderson et al., 2000; Widén-Holmqvist et al., 1998). Approximately 68-80% of paralysis/paresis survivors require well rehabilitation performed by their family caregivers at their home (Bakas et al., 2002; Correia et al., 2004; Dorsey & Vaca 1998). Thus, Family caregivers shoulder major care giving tasks while caring for their paresis or paralysis survivors at home. The appropriate rehabilitation practices would enhance functional recovery and minimize dysfunction, improving subsequent healthcare utilization. In addition, rehabilitation at home also would promote the quality of life of paralysis patient. Thus, improvement in home rehabilitation is a particularly noteworthy area for health services research (Hoenig, Horner, Duncan, Clipp, & Hamilton, 1999). Despite the availability of home health care service for family caregivers, the quality of care outcomes remain poor.

At present, Public Health College, Nurse College, and relevant organizations realize how important home healthcare is; consequently, home health care services are integrated in the curriculum for health science students in Thailand. Sirindhorn College of Public Health, Yala is under the jurisdiction Prabporomarajchanok Institute for Health Workforce Development (PIHWD), Ministry of Public Health of Thailand.
The objective of this paper is to share knowledge and experiences for Paresis and Paralysis Patients in Thailand. To conduct home visits effectively, students must acquire fundamental and well-defined attitudes, knowledge and skills in addition to an inexpensive set of portable equipment. "INHOMESSS" Standing for: immobility, nutrition, housing, others, medication, examination, safety, spirituality, services is an easily remembered mnemonic that provides a framework for the evaluation of a patient's functional status and home environment.

**Literature Review**

Jullamate et al, n.d. studied the methods used and to investigate needs during providing informal rehabilitation for stroke survivors at home. The results revealed that four major strategies used for providing informal rehabilitation activities were physical, psychological, social and spiritual rehabilitation activities. Biological rehabilitation was the most frequently undertaken by all Thai caregivers. Several methods were used to rehabilitate the stroke survivors in each strategy based on the scientific background and cultural beliefs of the caregivers and survivors. In addition assistance, information and social support were the three main needs of these Thai caregivers while providing informal stroke rehabilitation.

Anderson et al (2000) studies the resource and economic implications of an early hospital discharge and home-based rehabilitation scheme for patients with acute stroke. The results of this study revealed that the cost of home-based rehabilitation was consistently lower than that of conventional care except when hospital costs were assumed to be 50%.

Bakas et al. (2002) studied the needs, concerns, strategies, and advice of family caregivers of stroke survivors during the first 6 months after hospital discharge. The finding revealed five major categories of caregiver needs and concerns: information, emotions and behaviors, physical care, instrumental care, and personal responses to caregiving.

Smith et al. (2004) aimed to describe the experience of caring for a stroke survivor at one year after stroke in Scotland. The results found that caregivers lacked the knowledge and skills to care for the stroke survivor at home and so they had to learn how to obtain the information and assistance required. Carers had to adapt to the changes that stroke effected in the stroke survivor and seek alternative ways of securing the resources they needed for managing their lives. They thought that they had not been prepared adequately for the caring role or assessed satisfactorily in terms of whether they could manage given their skill level, age and/or health status.

**Methodology**

**Participants**

The participants in this study were 3 groups including (1) twenty-five Thai traditional medicine students, (2) five Informal caregivers who identified themselves as primary caregivers of stroke survivors, and (3) five paralysis patients.

**Method**

The project goal was designed to initiate learning practicum for Thai traditional medicine students. The central theme of the course was family health over the life cycle. Students learnt to conceptualize family health beliefs and behavior from a biopsychosocial framework, and they learnt to assess family health care needs and health care access through a multidisciplinary lens. Students were assigned to do home visits with health volunteer in the community, patient’s home health care project and case report. Activities were as following:
- Student Home Visit Teams: Students were sub-divided into teams of 5 students. Each team was assigned to visit a paresis or paralysis patient in the community three times with health volunteer.
- Doing Home Visits: Students assessed paresis and paralysis patients’ health care needs with “INHOMESSS framework,” which incorporates investigations of safety issues, spiritual health and home health agencies.
- Patient’s home health care project: After home visit, each team developed Thai traditional home health care project based on patient’s problems.
- Case report: To describe patient conditions based on “INHOMESSS framework, to report patient’s home health care project based on patient’s problem, and to conclude the results of home health care project. Then student referred patient to community health staff.

Instrument

INHOMESSS framework (University of Florida, 2008) was used to evaluate a patient's functional status and home environment

1. Immobility. Evaluation of the patient's functional activities includes assessment of the activities of daily living (bathing, transfer, dressing, toileting, feeding, continence) and the instrumental activities of daily living (using the telephone, administering medications, paying bills, shopping for food, preparing meals, doing housework). Corrective interventions were directed at any deficiencies noted. For example, modified pill-bottle caps can be obtained for the patient who has trouble opening medication containers because of a condition such as weakness.

2. Nutrition. Students assessed the patient's current state of nutrition, eating behaviors and food preferences. Permission to look in the refrigerator or cupboard was obtained by asking open-ended but directed questions. For example, students might say, “We have been working hard on your diet to control your blood pressure. Would you mind if I look in your refrigerator to see the types of foods you eat?” Students assessed serving sizes and the nutritional value of foods with relative ease. Healthy food preparation techniques were reviewed with the patient.

3. Home Environment. The patient's home environment should allow for privacy, social interaction and both spiritual and emotional comfort and safety. A safe neighborhood with close proximity to services is important for many older patients. The home may reflect pride in the patient's family and past accomplishments and reveal the patient's interests and hobbies. Students did not make assumptions about social class or material wealth based on the patient's physical environment.

4. Other People. Having the patient's social support system present at the home visit clarifies the roles and concerns of family members. During routine visits, students assessed the availability of emergency help for the patient from family members and friends and clarified specific issues, such as who was to serve as surrogate for the patient in the event of incapacitation.

5. Medications. Student evaluated the type, amount and frequency of medications, and the organization and methods of medication delivery. An inventory of the patient's medicine cabinet provided clues to previously unidentified drug-drug or drug-food interactions. A home medication review can also allow a direct estimate of patient compliance, uncover evidence of “doctor shopping” and identify the use or abuse of over-the-counter medications and herbal remedies.

6. Examination. Student did a directed physical examination based on the needs of the patient. Practical, function-related examination techniques may include having the patient demonstrate getting on and off the toilet. Student had the patient demonstrate proper technique for the self-monitoring of blood pressure levels. In addition, student weighed the patient and obtained a blood pressure measurement.

7. Safety. The goal of the home safety assessment is to determine whether the patient's environment is comfortable and safe (no unreasonable risk of injury). To raise the subject, the provider should simply state the intention to identify and help modify potential safety hazards. For example,
furniture placement or throw rugs may create problems for an elderly patient with gait instability, or the tap water may be so hot that the patient is at risk for scald injury.

8. Spiritual Health. If the home contains religious objects or reading materials, student can ask about the influence of spiritual beliefs on the patient's sense of physical and emotional health. This information may provide the impetus, as desired by the patient, for a discussion of spirituality as a coping and healing strategy.

9. Services by home health agencies. Having members of cooperating home health agencies present for the house call can enhance communication and cooperation among the health care provider, patient and agencies. Existing orders can be clarified, priorities for future care can be established and other perspectives on the care plan can be solicited. The patient's relationship with home health agency providers can also be assessed.

Data Analysis

A qualitative research approach was employed into this study. Content analysis was used for qualitative data analysis.

Results

First case, she has been living with hypertension for 8 years. She doesn’t get continuous treatment for high blood pressure. She sometimes stops take prescription medicine because medicine make her frequent urination. Thus, she takes herbal medicine from local healer. She has been living with right paralysis for 6 year. She has less ability to take care herself. Thus, her daughter in law is taking her during daytime and her daughter and her son take care during nighttime. Currently, she has right hemiparesis, pressure sore grade 1, and muscle pain from immobile. Her pressure sore ulcer makes her very painful.

For pressure sore ulcer, students taught care giver to turn and reposition her regularly. A bedridden patient may require repositioning every couple of hours. Sheepskin or some type of padding over the wound may help reduce friction when the patient is repositioned. Thus, students did balloon mattress to relief pressure sore. For muscle pain, students did Thai massage for muscle rehabilitation and taught care giver how to do Thai massage. Students did herbal hot compression for muscle rehabilitation and taught
caregiver to do herbal hot compression. Thai herbal hot compress combines various traditional Thai herbs. The herbal hot compress was used to relieve muscle pain, as well as to increase energy flow, improve circulation, relax muscles and stimulate nerves. When heated, the compress releases natural aromatic oils of various herbs that soothe physical and emotion.

Second case, patient has been living with hypertension and diabetes for 30 years. She has lower limbs paresis for 10 years. Students did pulley exercise equipment for muscle rehabilitation. Students taught family how to do Thai massage and appropriate position for patient.
Third case, she had left hemiplegia and muscle pain. She also had less activity. Students did hand exercise for muscle rehabilitation. Students did massage equipment from spooled thread tube to do self massage.

Forth case, patient had right hemiplegia and muscle pain. Students did seesaw board exercise equipment for muscle rehabilitation. Students taught patient to do Thai self massage for muscle rehabilitation.
Fifth case, patient had lower limbs paralysis. Students did pulley exercise equipment for muscle rehabilitation. Students taught family how to do exercise and appropriate position for patient.

Discussion

Based on patient and care giver interview, it found that rehabilitation program using traditional Thai massage, herbal treatments and physical therapies improved activities of daily living, mood and sleep patterns, and pain intensity of paresis/paralysis patients over time. The results of this study were similar to
several studies that home visits can lead to improved medical care through the discovery of unmet health care needs (Arcand & William, 1981; Fabacher et al., 1994; Ramsdell et al., 1994). Ramsdell et al. (1994) studied the yield of a home visit in the assessment of geriatric patient. They found that home assessment of elderly patients with relatively good health status and function resulted in the detection of an average of four new medical problems and up to eight new intervention recommendations per patient. Major problems detected included impotence, gait and balance problems, immunization deficits and hypertension. Significantly, these problems had not been expected based on information obtained from outpatient clinic encounters. Bernardini et al. studied compliance in CAPD and CCPD patients as measured by supply inventories during home visits. The results demonstrated the effectiveness of home visits in assessing unexpected problems in patient compliance with therapeutic regimens. Tideiksaar did research on environmental adaptation to preserve balance and prevent falls. The finding have shown that the specific home-based interventions, such as adjusting the elderly patient's home environment to prevent falls, have also yielded health benefits.

The results of this study also relevant to several studies that paralysis patient require intense inhome-rehabilitation performed by their family caregivers (Bakas et al., 2002; Correia et al., 2004; Dorsey & Vaca 1998). In addition, the appropriate rehabilitation practices should enhance functional recovery, minimize dysfunction, improve subsequent healthcare utilization, and promote the quality of life of paralysis patient (Hoening, Horner, Duncan, Clipp, & Hamilton, 1999). Thus, family care giver continuous needs assistance, information and social support from health care provider such as pressure sore care, nutrition, exercise as well as medicine. In conclusion, patient needs regular visits and instructions while the complicated ones need more sophisticated care. In addition, we should do more research to develop the most suitable and effective home health care to yield the best benefits to the paresis and paralysis patients.

Acknowledgement

We would like to thank Institute of Research and Development for Health of Southern, Thailand to support research funding.

References


