

A Study on Self-Efficacy and Health Behavior in Stroke Patients

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Abstract: With the increasing aging population in China, the incidence of stroke has significantly risen, becoming a serious public health concern. Stroke has a negative impact on patients' quality of life and recovery. Therefore, it is essential to focus on improving the health behaviors of stroke patients to reduce the harm caused by stroke. This study aims to explore the relationship between self-efficacy in stroke patients and their health behaviors. The goal is to better understand the role of self-efficacy in stroke recovery and health management, providing valuable insights for improving the health behaviors of stroke patients. The results of the study indicate a positive correlation between self-efficacy in stroke patients and their health behaviors. Self-efficacy is derived from self-success experiences, experiences of others' success, verbal persuasion, and emotional states, all of which play a crucial role in patients' health behaviors. Enhancing patients' self-efficacy is beneficial for helping them better cope with stroke, improve the recovery process, and reduce the risk of disease recurrence. Therefore, in the nursing and rehabilitation of stroke patients, enhancing their self-efficacy is crucial and can be achieved through nursing interventions and health education. This not only improves the patients' recovery process but also enhances their quality of life.

1. Introduction

Due to the rapid economic and social development, the aging of the population in China has become increasingly serious, while the incidence of stroke has also increased sharply. Stroke is also known as stroke or cerebrovascular accident. According to the death rate and composition of major diseases among Chinese urban residents in 2009 released by the Ministry of Health of China in 2010, cerebrovascular disease ranks the third, and the second in rural residents^[1]. Stroke is also an important disabling disease. Patients with stroke often have hemiplegia, aphasia, mouth and eyes deviation, dysphagia, cognitive impairment, emotional disorders and other dysfunctions, which greatly reduce the independent ability of daily life and greatly affect the quality of life. According to statistics, about 3/4 of the surviving stroke patients have different degrees of lack of labor ability, and about 40% of them are severely disabled^[2]. The high morbidity and disability rate of patients after stroke cause serious physical, psychological and social obstacles, which greatly weaken the confidence of patients in rehabilitation. The recurrence of stroke can lead to the aggravation of neurological dysfunction and

the increase of mortality, so it is particularly important to prevent the recurrence of stroke.

Existing studies ^[3] have shown that unhealthy behaviors have a great relationship with the occurrence of stroke. Common chronic non-communicable diseases such as heart disease, hypertension, coronary heart disease and stroke are mainly affected by unhealthy lifestyles ^[4]. Therefore, stroke patients should change unhealthy behaviors to form healthy lifestyles. Therefore, this study further explores the relationship between self-efficacy and health behaviors in stroke patients, so as to better establish and maintain patients' health behaviors, reduce the harm caused by stroke to patients, and improve the quality of life of stroke patients, which has positive significance for family and society.

2. Health behaviors

In the 1960s, Kasl et al. proposed health behavior, which was considered as the behavior that people implemented in order to prevent diseases or detect diseases early ^[3]. This definition includes three categories: (1) preventive health behavior, which is the behavior taken by people who think they are healthy to prevent diseases when they are not sick; (2) Illness behavior, the behavior taken by individuals who feel sick to determine their own health status or to seek appropriate treatment; (3) Patient role behavior, which refers to the behavior taken by the individual to restore health when the individual is identified as a patient, including obtaining treatment and relieving the responsibility before ^[5]. It can be seen that the original definition is limited to "no disease". In 1986, Duffy conducted a study on family health behavior and proposed that health behavior included conscious and unconscious behaviors in ordinary life but beneficial to health. This definition made people realize the role of cognition on health behavior for the first time ^[6]. Subsequently, Gochman proposed the definition of health behavior for individuals, which included not only observable explicit behaviors, but also psychological events and feelings that could be reported and measured. He defined health behaviors as "overt behavioral schemas, actions, and habits associated with the maintenance, restoration, and improvement of health." Health behaviors in this definition include the use of medical services (regular physical examinations, etc.), adherence to treatment protocols (prescribed diets, treatment regimens, etc.), and autonomous health behaviors (exercise, etc.). The function of health behaviors extends from the prevention and detection of diseases in the early stage to the rehabilitation of diseases and the promotion and maintenance of health. Subsequently, some scholars incorporated group into the definition. Parkerson defined health behavior as the behaviors taken by individuals and groups to improve coping skills and quality of life, as well as the determining conditions, related factors and results, including social changes, policy development and implementation.

In summary, health behaviors refer to the positive actions taken by individuals to prevent diseases and maintain their health. It includes changing risky lifestyle, reducing or eliminating health risk behaviors, adopting positive health behaviors, and following doctor's instructions.

3. Self-efficacy

Perceived self-efficacy, a concept proposed by Bandura in 1977, is an important part of his social cognitive theory. In summarizing the previous studies, Bandura found that the previous theories and studies mainly focused on people's knowledge acquisition or response types of behavior. As a result, the processes that govern these interactions between knowledge and behavior have been neglected. The theory points out that the initiation of a behavior and the maintenance of the behavior process mainly depend on the expectation and belief of the actor about his relevant behavioral skills. This belief plays a very important role in many areas of human activities, that is, the role of self-regulation. Originally, self-efficacy was defined as "an individual's ability to anticipate his or her ability to

successfully perform a desired behavior." Since the 1980s, self-efficacy has been regarded as "the perception of the ability to act and the belief about the ability to adhere to self-generation" [7], or "people's ability to organize and implement the behavioral process to achieve a specific operational goal". In the 1990s, self-efficacy was redefined as "the ability of individuals to organize and implement the behavioral process required to achieve specific goals" [8]. Therefore, from the perspective of the development of this concept, self-efficacy refers to a form of thinking that individuals regard themselves as the object, rather than some personality traits. It is the belief, judgment, or self-feeling that an individual has before performing a certain task about the level at which he or she is able to perform that task.

Self-efficacy directly affects the function of the dynamic psychological process of the individual when performing activities, and plays an important role in the self-regulation system. Self-efficacy includes two aspects: outcome expectation and efficacy expectation. Outcome expectation refers to the individual's prediction of whether their behavior can cause a certain outcome; While efficacy expectation refers to the judgment of an individual's confidence in completing a specific behavior, that is, the speculation about his or her ability to act. The judgment of self-efficacy expectation plays a major role in determining whether to perform the behavior, the degree of effort, and the duration of adherence. The stronger the individual's perceived self-efficacy expectations, the more powerful and sustained the effort will be. Bandura found through a large number of studies that the formation and change of self-efficacy are affected by the following four information sources, which convey certain efficacy information and affect people's efficacy level [9].

① Self-success experience, the experience of previous success and failure has the greatest influence on the formation of individual self-efficacy. Successful experience can form a high sense of self-efficacy, and failure experience may reduce the self-efficacy of individuals. Especially when the individual has not yet formed a strong sense of self-efficacy, such as health education in hospital and after discharge, telephone follow-up can enhance the self-efficacy of patients undergoing cardiac surgery [10].

② Verbal Persuasion, that is, to obtain persuasive information about one's own ability from different people. For example, individual counseling for diabetic patients, encouraging language and optimistic and positive attitude to affirm any self-management behavior performance of diabetic patients can significantly improve the self-efficacy of patients [11].

③ Vicarious Experience, that is, the role model of other people's activities, which is indirectly obtained by individuals observing the activities of others. When individuals see that successful people are similar to themselves in terms of ability and level, they will be confident that they can also obtain the same level of achievement when they are in a similar activity situation, and their self-efficacy will increase, otherwise it will decrease. For example, the support of patients with the same disease who have recovered can enhance the self-efficacy of patients undergoing first cardiac surgery [12].

④ Emotional and physiological state: the so-called emotional and physiological state refers to the physical and psychological reaction of the individual when facing a certain activity. For example, the individual's self-efficacy will change in the face of positive emotions when success and negative emotions when failure. For example, when diabetic patients undergo exercise therapy, they cannot adhere to exercise due to muscle pain or physical weakness caused by excessive exercise, which will reduce self-efficacy.

Self-efficacy in this study refers to the confidence that stroke patients have the ability to successfully carry out healthy behaviors. There are four main sources of self-efficacy in stroke patients: self-successful experience, successful experience of others, verbal persuasion, and emotion. Self-successful experience is the most independent and influential factor based on the experience that a person has experienced. Others' experience of success, behavior change from peers and role modeling, was the second most influential factor. Words of praise and encouragement enhance

confidence in one's own abilities. Anxiety and tension caused by various factors can reduce self-efficacy ^[13].

4. The relationship between self-efficacy and health behaviors in stroke patients

First proposed by Bandura, a famous American psychologist, self-efficacy refers to an individual's perception or belief of his or her ability to control his or her behavior and surroundings. Bandura's research shows that people's cognitive thinking process, especially self-efficacy (ability confidence), is the main factor for people to judge the ability to carry out specific behaviors, and to a large extent, it affects the choice and persistence of behaviors ^[14]. Human behavior is not only influenced by the outcome of behavior, but also by the expectation of the ability and outcome of behavior formed through cognition. It promotes physical and mental health by affecting people's physical and mental regulation system and controlling personal healthy living habits and physiological aging ^[15]. Self-efficacy directly reflects the health belief of patients, that is, when confidence is insufficient, it will affect their confidence to overcome the disease, and then produce negative attitudes, reduce the control of the disease, and then reduce the health promotion behavior.

The research results of Zhang Yi ^[16] show that self-efficacy and health behavior of stroke patients are positively correlated, and stroke patients with higher self-efficacy level have higher health behavior level, which is consistent with the research results of other researchers ^[17]. Therefore, the self-efficacy of stroke patients has a great relationship with the physical and mental health of patients. Self-efficacy is an important variable to promote the change of disease perception and health behavior of stroke patients.

Studies ^[18] have shown that in the process of treatment and rehabilitation nursing of stroke, improving patients' self-efficacy and guiding patients to adopt a more active way to cope with the disease are conducive to the recovery of the disease and the improvement of the quality of life. The function of self-efficacy is mainly to regulate and control behavior, and to influence the health outcomes of individuals through behavior regulation. Patients with higher self-efficacy have stronger beliefs to cope with various difficulties, and are more likely to change their bad behavior habits and maintain a good lifestyle, so as to improve their self-management behavior and produce healthy behaviors.

Studies have found ^[19] that the improvement of self-efficacy plays a positive role in promoting health behaviors, and self-efficacy is positively correlated with health behaviors. Hua Yajun et al. ^[20] conducted a survey on 500 patients with coronary heart disease and health checkup, and found that the patients' self-efficacy was positively correlated with the total score and dimensions of health behavior, that is, the stronger the patients' self-efficacy was, the more positive their health behavior was, and the more beneficial the patients' disease recovery was. Perkins et al. ^[21] investigated and analyzed patients undergoing percutaneous transluminal coronary angioplasty and found that there was a positive correlation between self-efficacy and health behavior. The higher the level of self-efficacy, the better the health behavior of patients.

Self-efficacy is an individual's subjective assessment of whether they have confidence in a specific field to complete the target task. The evaluation results will directly affect the choice of individual behavior and the determination to achieve. The stronger the self-efficacy of patients, the more health needs, the more confidence in the achievement of health goals, and the longer the time to establish and adhere to health behaviors. Domestic and foreign studies have shown that self-efficacy is one of the main influencing factors to predict the change and maintenance of health behavior, and plays an important role in the individual behavior change of patients ^[22]. Therefore, effective self-efficacy intervention can be carried out for stroke patients, so as to promote patients to adopt effective and good health behaviors. As shown in Figure 1.

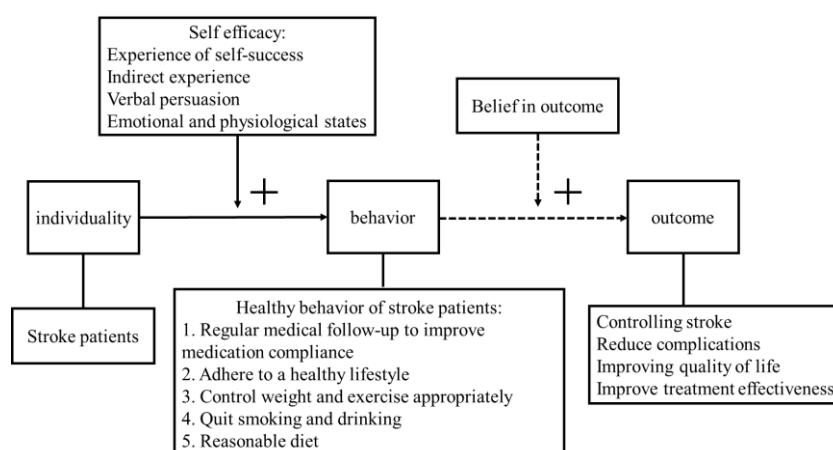


Figure 1: The relationship between self-efficacy and health behaviors in stroke patients

5. Nursing of stroke patients

Fleury (1992) pointed out that nursing is concerned with helping patients understand, perform, and maintain healthy behaviors. The role of nurses is not only the provider of treatment, but also the facilitator and supporter of health behaviors, improving the competence confidence of nursing objects to promote their health behaviors [23]. In terms of caregivers, Lv Lulu [24] pointed out that the longer the course of stroke patients, the higher the comprehensive care ability of caregivers. By constantly learning new knowledge and care content, caregivers can master more nursing knowledge and skills with the progress of time. Zhao Xueping [25] also pointed out that the care ability of family caregivers increased with the extension of care time, which was consistent with human adaptability. This suggests that nursing workers should pay more attention to the psychology of patients with initial disease or short course of disease, and take the initiative to provide psychological counseling and technical support to caregivers in time, so as to provide maximum help.

Wang Mei [26] pointed out in the investigation and analysis of medication compliance of hypertension patients that stroke patients have poor memory and may not take medicine on time and on point, and may even take the wrong medicine. At this time, family members need to remind them to take medicine on time to improve the patient's medication compliance. In the process of nursing intervention and treatment, medical staff should have friendly communication with the family members of the patients, and let the family members care about and take care of the patients, let the patients follow the doctor's advice (take medicine), and help the patients develop good health behavior. Therefore, family support should be considered when making health behavior intervention decisions, and family members should be included in the construction of healthy behavior programs to help patients establish a good family support system.

In the study of Rong Yanqin [27], perceived benefits were included in the regression equation of the health behavior of stroke patients, and the results showed that there was a positive correlation between perceived benefits and the level of health behavior. Perceived benefits meant that only when individuals realized that their behavior was beneficial, they would take action consciously. Therefore, when nursing staff carried out health education, Therefore, nursing staff should make patients clearly realize that adhering to healthy behaviors can delay the progress of stroke course, reduce the possibility of stroke recurrence, help them build confidence in adhering to healthy behaviors, so as to promote them to adopt and adhere to healthy behaviors.

6. Conclusion

In the future work, medical workers should guide patients to adjust their stress, maintain a good attitude in the face of long-term treatment and rehabilitation, actively face the pressure and difficulties that may be encountered in the rehabilitation treatment, and adopt correct healthy behavior and lifestyle to manage their stress. Let patients understand the appropriate amount of appropriate exercise to help disease rehabilitation treatment, guide the method of exercise, time, intensity, expected goals, so that they can actively and actively participate in exercise on the basis of understanding the significance of exercise, and persist in exercise, and then establish a good lifestyle to help disease rehabilitation treatment and prevention of recurrence; While guiding patients to improve their lifestyle and choose the right health behaviors, they should be helped to complete the role transformation and role adaptation as soon as possible, so that they can correctly face the changes brought by the disease, and set suitable self-realization goals for their new role, so as to improve their sense of achievement.

On the other hand, on the premise of fully assessing all aspects of stroke patients, medical workers can improve the self-efficacy level of patients through targeted health education, so as to improve their health behavior level. In conclusion, in nursing education and practice, we should pay attention to the role of self-efficacy in promoting patients' health behavior, help patients correctly judge the level of self-efficacy and health behavior, and take effective nursing measures to improve the level of patients' self-efficacy.

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