Self-Efficacy of Patients at High Risk for Stroke in Reducing Risk Factors

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ABSTRACT

Background: Stroke is the second leading cause of death and the third main cause of disability worldwide. It accounts for 5.7 million deaths every year, and 15 million people suffering from stroke have physical disabilities, of which 77% are first strokes [1,2].

Purpose: This study aimed to identify and explore patients' self-efficacy in reducing the risk factors for stroke. This qualitative research was conducted using the descriptive phenomenology method. Nine participants were selected by purposive sampling at the Depok City Health Center.

Result: The result of this study revealed three themes that describe how the self-efficacy (self-confidence) of patients who are at high risk for stroke helps reduce their risk factors, namely, 1) trying to have a healthy lifestyle, 2) acknowledging unhealthy behaviors, and 3) having self-efficacy in reducing the risk factors for stroke.

Conclusion: This study found various false perceptions related to stroke risk factors and self-care. Therefore, behaviors that are believed to improve health are not showing their expected impact.

Recommendation: Efforts should be made to increase patients' self-efficacy. These include increasing patients' knowledge, motivation, and skills in taking care of themselves to reduce stroke risk factors and thus avoid stroke.

INTRODUCTION

Stroke is the second main cause of death and the third leading cause of disability worldwide. First strokes should be prevented to reduce the mortality rate significantly. Various entities must collaborate to increase public knowledge and awareness that strokes must be prevented, and their risk factors must be avoided. The best approach to preventing strokes and stroke-induced death and disability is by preventing first strokes. Doing so would reduce the mortality rate significantly, given that 77% of all stroke events are first strokes [1,2,3]. Therefore, stroke risk factors should be identified and modified [2,4]

Readiness and motivation are needed to change one's behavior to improve their self-efficacy in modifying lifestyles that become risk factors for stroke [5,6]. Self-efficacy is the main factor of human agency about what is thought, believed, and felt and what influences one to act. Self-efficacy describes one's amount of knowledge, emotions, and motivation to take action [7]. Some research states that a high self-efficacy (self-confidence) to stay healthy will motivate a person enough to take care of themselves, increase their efforts, and set high goals, thereby eventually succeeding in maintaining their health. In other words, a high self-efficacy supports good self-care [7,8], which in turn can control one's stroke risk factors; consequently, stroke can be prevented, controlled, and even eliminated.

For this reason, researchers feel the need to identify and explore the self-efficacy of patients who are at high risk for stroke in maintaining their health status and reducing their risk factors.

METHOD

This study aims to explore the self-efficacy of patients at high risk for stroke using a qualitative method with a phenomenological approach. In-depth interviews were conducted with nine participants to collect data and explore their self-efficacy in reducing the risk factors for stroke. The opening question in the in-depth interview aimed to learn the patients' knowledge about stroke and its risk factors.

The researchers performed coding and categorization and determined the themes and subthemes by transcribing and analyzing the interviews. A theme emerged from participants one to three — trying to have a healthy lifestyle. A new theme — acknowledgment of unhealthy behaviors — was obtained from participant five, and the last theme — self-efficacy in reducing stroke risk factors — was raised by participant nine. Researchers stopped the data collection process because there are no new themes were found after participant nine.

RESULT

Characteristics of the Participants

There were nine participants in this study, and their characteristics were in accordance with the inclusion criteria, namely, taking of antihypertensive drugs, taking of diabetes medication and or cholesterol medication, age of 40–55 years, senior high school as minimum level of education, and lack of any communication problem. Six of the participants were female, and three were male. All the participants had jobs, and seven were university graduates.

Each participant had various stroke risk factors besides hypertension as the main risk factor. The other risk factors were diet, stress, obesity, cholesterol, family history, and physical activity. The participants came from different ethnic groups, namely, Java, Malay, Batak, Minang, and Betawi.

Table 1. Characteristics of the participants (n=9)

Characteristic	Participants	%
Gender:		
Male	3	33.3
Female	6	66.7
Age:		
40–55	9	100
Ethnic Group:		
Malay	1	11.1
Java	5	55.6
Batak	1	11.1
Betawi	1	11.1
Minang	1	11.1
Educational Background:		
Senior High School	2	22.2
University	7	77.3
Work Status:		
Employed	9	100
Unemployed	-	-
Family System:		
Nuclear Family	7	77.3
Extended Family	2	22.2
Number of Stroke Risk Factors:		
➢ 3		
➢ 5	6	66.7
	3	33.3

The outcome of the in-depth interviews showed several themes related to self-efficacy. They are the following.

Trying to have a healthy lifestyle
The first theme describes the efforts made by the participants to control and reduce stroke risk factors, such as carrying out health checks and balancing food intake with physical activity. The following are interview excerpts from the participants regarding their efforts to have a healthy lifestyle.

"…I get my blood pressure checked once a month…" (P4)
"…I try to avoid high-cholesterol food like red meat. I eat chicken or fish…" (P3)
"…I avoid eating mutton, since I have constantly had a high blood pressure this past year…" (P7)

Acknowledging unhealthy behaviors
The participants said that they realize that their daily behaviors mostly do not support their health. Approximately 90% of stroke risk factors can be prevented, modified, and controlled. Therefore, there is a 90% opportunity to prevent stroke [2,4]. The following are statements of the participants who realized that most of their behaviors are unhealthy.

"…I have a bad habit. I like to procrastinate. My lifestyle is a mess because I can't manage my time well…" (P1)

"…It's difficult to change my habit since I'm so used to it…" (P3)

"…Well, I'm the kind of person who have difficulty managing myself… I don't regularly exercise or take my medicine. Yet, I want to be healthy…" (P2)

Having self-efficacy to reduce stroke risk factors
Participants know that stroke must be avoided. They can't afford to have stroke since they know it will significantly affect their family. Participants' self-management was based on their understanding, perception, and experience. The followings are the participants' statements related to self-efficacy to reduce stroke risk factors:

"…I'm doing something based on my knowledge and based on the information I get from the health worker. At least I get the information on how to handle my medical problems…" (P1)

"…I'm often worried because stroke has its triggers. It means that I have to be cautious… (P3)

"… Since one of my neighbors passed away due to a stroke, I take my medicine regularly. I'm afraid that it might happen to me. I still have a young kid to take care of." (P5)

DISCUSSION
Trying to have a healthy lifestyle
The results of the in-depth interview showed that the participants made efforts to maintain their health. The efforts were based on their own perceptions and knowledge about their health problems. The interview showed that the participants had wrong perceptions and had made wrong actions toward their health. Generally, the participants did not have any knowledge about stroke symptoms, the risk factors, and the impacts if the risk factors were not modified correctly. Increasing knowledge to recognize the signs and symptoms of stroke is very important to reduce the incidence of stroke [9,10,19]. But when they learn more about stroke, all participants understood that strokes could be prevented by exercising regularly and eating properly. One of the participants' understandings on stroke is as follows: *"… From what I*

understand is that stroke happens due to thick blood, so in order to avoid stroke I have to drink lots of water ..." (P1)

The participants lead a healthy lifestyle based on their perceptions, while someone's perception is strongly influenced by their level of knowledge. More than 50% of the participants practice a healthy lifestyle that is not actually healthy, especially to reduce the risk factors of stroke that they have. Kamran states that there is significant relationship between knowledge and someone's perception toward uncontrolled hypertension. The lack of knowledge is a reason for someone to not pay attention to the health problems they have [11].

This study concluded that the participants have not been able to identify stroke risk factors and they have insufficient knowledge related to the management of these risk factors, so that the efforts they made are only to eliminate complaints of their health problems, but not to reduce stroke risk factors. It is very important to increasing public knowledge to recognize the risk factors they have and improving the ability to take care of themselves specially to reduce stroke risk factors.

Realizing unhealthy behavior

In this study, the researchers found that the participants realize their daily behavior is not good for their health. Kamran explains that unhealthy behavior is rooted in misperceptions and misinformation about stroke risk factors [11].

Qualitative results show that unhealthy behavior is an inhibiting factor in reducing stroke risk factors, such as unhealthy lifestyles, the lack of self-motivation, and self-management. This behavior can be caused by ignorance, lack of information, and lack of skills that support the efforts in self-care. Kilkenny states that the right strategy in preventing stroke is to increase public knowledge and to lead a healthy live [12].

It is estimated that 90% percent of stroke risk factors are modifiable. If the modification is not done properly, there can be a high chance for stroke. Therefore, it is necessary to do "therapeutic lifestyle changes" as recommended by ASA [4,13]. This lifestyle change will affect the behavior of the participants in managing themselves against their stroke risk factors.

Having self-efficacy to reduce stroke risk factors

This study shows that the participants have self-efficacy (self-confidence) to reduce stroke risk factors, the willingness to improve their knowledge, to improve their ability to care for themselves in order to avoid stroke. This proves that it takes knowledge, good self-awareness, high motivation, and skills to reduce stroke risk factors. These all aim to maintain their health conditions by modifying their lifestyle from the risk lifestyle to the non-risk lifestyle. Self-efficacy is an important factor for the change in behavior [5,7,14,15,16,19].

If someone has high self-efficacy (self-confidence) to maintain health, then he will persevere in taking care of himself, in increasing efforts, and in making higher goals and will eventually be successful in maintaining his health. High self-efficacy supports better self-care [7,8].

CONCLUSION

Self-efficacy (self-confidence) is the main factor of human agency about what is thought, believed, felt and is able to influence someone to act. Someone's high or low self-efficacy will affect motivation, interest, and commitment to act [17,18]. By having high self-efficacy in reducing stroke risk factors, the community can take good and proper self-care to be able to control the risk factors, so that stroke can be prevented, controlled, and even eliminated.

Nurses as health workers have more opportunities to improve the self-efficacy of patients at high risk for stroke [20].

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