

# Hypnotherapy to Reduce Post-Stroke Muscle Tension In Indonesia

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## Abstract

Cerebrovascular disease or stroke is a group of brain dysfunctions related to disease of the blood vessels supplying the brain. According to data from the Health Research in Indonesia, prevalence of disease according to the number of strokes in Indonesia from 2007 to 2013 tended to increase. Stroke patients is certainly abnormalities in various organ functions such as difficulty walking, and moving the hand or even difficult to speak. In addition through the process of physiological therapeutics, one that is comprehensive and holistic approach, which is through the process of hypnotherapy. Hypnotherapy is a therapy that is performed on patients in a hypnotic state. Even some serious medical cases such as cancer and heart attacks, hypnotherapy accelerate recovery of a patient. It is very possible because directed hypnotherapy to boost the immune system and reprogram individual attitude towards her illness. In hypnotherapy there is a progressive relaxation technique, relaxation technique that is done by focusing on the contraction and relaxation of the muscles of the body. So the therapy for post-stroke patients using hypnotherapy, especially with the use of progressive relaxation techniques, can help reduce muscle tension in patients with post-stroke.

*Keywords:* Stroke, Hypnotherapy, Hypnosis, Progressive Relaxation.

## 1. Introduction

Cerebrovascular disease or stroke is a group of brain dysfunctions related to disease of the blood vessels supplying the brain. When physicians speak of stroke, they generally mean there has been a disturbance in brain function, often permanent, caused by either a blockage or a rupture in a vessel supplying blood to the brain. In order to function properly, nerve cells within the brain must have a continuous supply of blood, oxygen, and glucose (blood sugar). If this supply is impaired, parts of the brain may stop functioning temporarily. If the impairment is severe, or lasts long enough, brain cells die and permanent damage follows. Because the movement and functioning of various parts of the body are controlled by these cells, they are affected also. The symptoms experienced by the patient will depend on which part of the brain is affected[1].

There are two broad categories of stroke: ischemic and hemorrhage. Ischemic strokes are caused by a lack of blood flow to the brain and account for about 70 percent of all strokes. (See Figure 1) Hemorrhage accounts for about 20 to 25 percent of all strokes. In these strokes, blood seeps from a hole in a blood vessel wall into either the brain itself (intracerebral hemorrhage) or the space around the brain (subarachnoid hemorrhage)[1].

The number of stroke survivors in Indonesia increased from year to year, even this disease has become the number three killer in Indonesia after infection and coronary heart disease. Approximately 28.5% of patients with stroke in Indonesia died. While in Europe, the second stroke is a

dangerous disease after coronary heart disease. Among 100 hospital patients, at least 2 people are stroke patients. Stroke is also a primary health problem in the United States and the world. Despite prevention efforts have been attempted but stroke mortality rate is still high mortality rate of 18% to 31% for the first stroke and 62% for the next stroke. However, a stroke can be estimated and can be prevented in almost 85% of people. In fact, about one third of stroke patients can now be recovered if the patients always receive emergency treatment and adequate early rehabilitation[2].

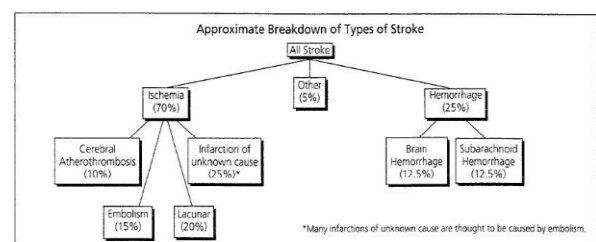
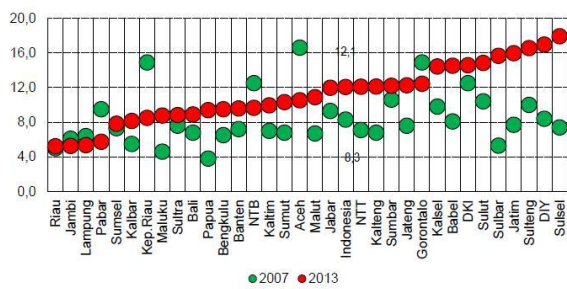


Fig. 1. Approximate Breakdown of Types of Stroke. (Cause of Stroke Types, 2013)

According to data from the Health Research in Indonesia, prevalence of disease according to the number of strokes in Indonesia from 2007 to 2013 tended to increase, according to data from the Health Research in 2013 are as follows:

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Table 1  
Trends prevalence of strokes per mile by province, 2007 and 2013<sup>a</sup>



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Table 1 shows the trend of the prevalence of stroke based on interviews show a rise of 8.3 per mile in 2007 to 12.1 per million in 2013. Seen significant downward trend in the two provinces of Riau and Aceh, but other provinces are likely to increase [3].

Stroke patients is certainly abnormalities in various organ functions such as difficulty walking, and moving the hand or even difficult to speak. In this condition takes a physiotherapist to help restore the body and physical condition in order to return to normal. Physiological therapy usually also followed by pharmacological therapy. But for some patients who cannot or do not want to take his medicine, pharmacological therapy will not be able to run smoothly. So that the healing process of patients who experienced post-stroke muscle tension becomes obstructed.

In addition, every stroke patients would be affected or very high psychological shocks. Usually stress in patients with stroke will have an impact on the psychological such as depression and anxiety. It can actually make things worse, because the body tends to slow to regenerate cells, when the mind is chaotic or stressful. Conversely, when the mind becomes calm and relaxed, the body tends rapidly to regenerate cells in the body.

Therefore, based on these conditions, it is necessary to increase the type of comprehensive and holistic therapies, as well as effective in restoring the condition of patients who experienced post-stroke muscle tension.

## 2. Literature Review

Looking from the increase in the number of stroke cases in Indonesia, to reduce muscle tension after a stroke would be more effective if using Hypnotherapy. Hypnotherapy will make the process of therapy becomes more secure and comfortable, the process of combining therapeutic relaxation music and progressive relaxation so as to make the patient feel comfortable.

The hypnotherapy technique has previously been used medical field, but with different diseases[4]. Some application of hypnotherapy associated with medical case ever made is:

Vanhaudenhuyse et al., (2009) in his study titled Pain and non-pain processing during hypnosis, hypnotism which explains that not only maintains its popularity in

nightclubs, but also used as an anesthetic in dentistry, birth of a baby, and various medical procedures, even surgery[5].

Dufresne et al., (2009) in his study entitled Do children with cancer undergoing pharmacological procedures under sedation still report pain and anxiety?, explains that some psychologists use hypnosis to teach clients how to reduce anxiety or overcoming fear[6].

Lang et al., (2000) in his study entitled adjunctive non-pharmacological analgesia for invasive medical procedures, explaining that a study with 241 patients in a hospital surgical Boston show how hypnosis can help people cope with pain and anxiety. And also patients undergoing procedures used only local anesthesia [7].

Jensen et al., (2009) in his study entitled Effects of self-hypnosis training and EMG biofeedback relaxation training on chronic pain in persons with spinal-cord injury, explains that hypnosis as an aid in relaxation training also helps people cope with stress and improve function their immune system[8].

Tonnesen (2009) in his study entitled Smoking cessation: How compelling is the evidence?, explains that hypnosis can be a useful adjunctive therapy to help other forms of therapy, particularly in helping to regulate body weight and quit smoking [9].

From the literature review about hypnotherapy, many who have used hypnotherapy to use the medical field. Therefore to reduce post-stroke muscle tension that will be realized in this research is to use hypnotherapy techniques.

## 3. Research Methodology

This study uses SWOT analysis, which is to identify and analyze the efforts in using hypnotherapy to use Progressive Relaxation techniques to reduce muscle tension after a stroke. SWOT analysis is an instrument used to analyze the situation and exploiting opportunities as well as a tool to minimize weaknesses and minimize the impact that must be faced. This analysis is based on the logic that maximizes the strength and opportunities, but at the same time can minimize the weaknesses and threats. SWOT analysis comparing the external factors: Opportunities and Threats with internal factors: Strengths and Weaknesses.

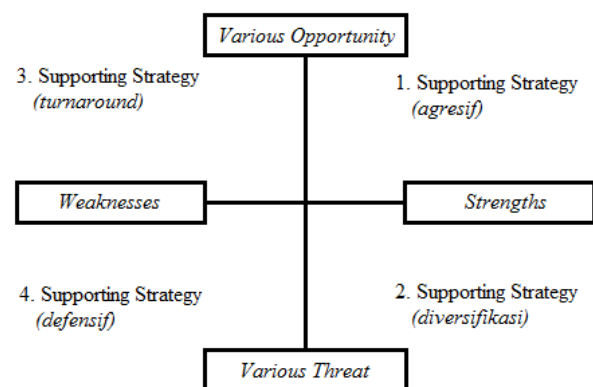


Fig. 2. Diagram of a SWOT analysis based on the quadrant.

Description:

- Quadrant 1: It is a very favorable situation. The organization has the opportunity and strength so as to take advantage of existing opportunities. The strategy should be applied in these circumstances is to support aggressive growth policy.
- Quadrant 2: Despite facing a variety of threats, organizations still have the power of the internal terms. The strategy to be applied is to use force to take advantage of long-term pekuanng by way of diversification strategy.
- Quadrant 3: Organizations face the opportunities, on the other hand he faced some obstacles/internal weaknesses. The focus of the organization's strategy is to minimize the problems internal to the organization so it can better seize opportunities.
- Quadrant 4: It is a very unfortunate situation, the organization is facing a variety of threats and internal weaknesses.

Equipment used compile strategic factors is the SWOT matrix. This matrix can clearly describe how the external opportunities and threats facing the organization can be customized with its strengths and weaknesses. This matrix can produce four sets of possible strategic alternatives.

Table 2  
SWOT Analysis Matrix about Hypnotherapy

|  |  |  |
|--|--|--|
| <b>Internal Factors</b>                                  | <b>STRENGTHS (S)</b><br>Optimistic attitude  | <b>WEAKNESSES (W)</b><br>Suggestibility levels   |
| <b>Eksternal Factors</b>                                 |  |  |
| <b>OPPORTUNITIES (O)</b><br>Relaxation music             | <b>STRATEGY (SO)</b><br>Giving positive suggestions accompanied by relaxing music, so that patients feel comfortable.              | <b>STRATEGY (WO)</b><br>Using relaxation music as a companion in the process of suggestion, so that patients feel comfortable. |
| <b>THREATS (T)</b><br>Conditions experienced by patients | <b>STRATEGY (ST)</b><br>Provide motivation and suggestion to the patient, so that patients can receive the conditions experienced. | <b>STRATEGY (WT)</b><br>Using Progressive Relaxation techniques, to reduce muscle tension experienced by the patient.          |

- Strategy SO (Strength Opportunity Strategy): This strategy is based organization's way of thinking, that is by utilizing all the power to seize and exploit opportunities as possible.
- Strategy ST (Strength Threat Strategy): is the strategy in using the power of the organization to cope with the threat.
- Strategy WO (Weakness Opportunity Strategy): This strategy is implemented by exploiting existing opportunities by minimizing weaknesses.
- Strategy WT (Weakness Threat Strategy): This strategy is based on activities that are defensive and try to minimize weaknesses and avoid threats.

4. Results and Discussions

Hypnotherapy has been shown to have a variety of uses to address issues relating to emotions and behavior. Even

some serious medical cases such as cancer and heart attacks, hypnotherapy accelerate recovery of a patient. It is very possible because hypnotherapy is directed to boost the immune system and reprogram individual attitude towards the disease.

Several studies report that the benefits of hypnotherapy through progressive relaxation technique is able to reduce anxiety, insomnia, pain relief, control of high blood pressure, reduce depression, to reduce fatigue. Hypnotherapy through progressive relaxation techniques will stimulate hormones that affect a person's sense of comfort, for example hormone neuropeptides, hormones will be produced when a person experiences a deep relaxation. Hypnotherapy through progressive relaxation techniques will also stimulate theta system in the body, which is a hormone that has the benefits of relaxation substance to physical and emotional health. Specific hormones which includes this system is endogenous hormones, benzodiazepines, anandamide, melatonin, and NN dimethyltriptamin.

Progressive relaxation technique is a technique that focuses on the muscle activity, to identify the tense muscles then lowers tension with relaxation techniques to get a feeling of relaxation. advantage of this technique is to reduce muscle tension, anxiety, insomnia, depression, fatigue, irritability, muscle spasma, neck pain, back pain, high blood pressure, mild phobias, and mild stutter. Position in progressive relaxation techniques is to lie with a pillow under your head and knees, or sitting in a chair with his head supported. With progressive relaxation techniques, therapists concentrate on how to make the client's body becomes relaxed. Relaxation groove usually starts from head to toe [10].

Through the process of hypnotherapy , the patient slowly and gently casually escorted to his subconscious. Mind and body relaxed patient made first before going deeper into his subconscious. In practice, patients are not willing to be treated in a state of hypnosis, we can use relaxation music as a companion in the process of suggestion. Therapy sessions are usually designed in several meetings to reinforce the effects of suggestion given to the patient.

5. Conclusions

Hypnotherapy is a therapy that is performed on the patient in a hypnotic state. In hypnotherapy there is a progressive relaxation technique, relaxation technique that is done by focusing on the contraction and relaxation of the muscles of the body. So the therapy for post-stroke patients using hypnotherapy, especially with the use of progressive relaxation techniques, can help reduce muscle tension in patients with post-stroke.

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