

# The Effect of a Brief Intervention for Patients with Ischemic Stroke: A Randomized Controlled Trial

Yuehua Peng, MD,\*† Yun Lu, MD,‡ WeiQuan Wei, MPH,\* Jincong Yu, PhD,\*  
Dongming Wang, MPH,\* Yang Xiao, MD,\* Jinzhi Xu, MD,‡ and Zengzhen Wang, MD\*§

---

*Background:* Depression and anxiety are common after stroke. There is inconclusive evidence of the benefit of psychotherapy for poststroke depression and anxiety. Here, we used a brief intervention, Neuro-Linguistic Programming (NLP) brief therapy plus health education, to evaluate the changes in patients with ischemic stroke. *Methods:* One hundred eighty patients were randomly allocated to receive 4 sessions of NLP plus health education (n = 90) or usual care (n = 90). A set of questionnaires was used preintervention and postintervention as well as at the 6-month follow-up. The primary outcomes were the prevalence of depression and anxiety, and the awareness of stroke knowledge. *Results:* More patients in the intervention group achieved remission of depressive (odds ratio [OR], 2.81; 95% confidence interval [CI], 1.41-5.59) and anxious symptoms (OR, 2.19; 95% CI, 1.15-4.18) after intervention. At the 6-month follow-up, we found no differences between groups in both the prevalence of depression and anxiety. After intervention, the intervention group had better awareness rates on most of the stroke knowledge items ( $P < .05$ ). It also had better quality of life and physical function both after intervention and at the follow-up ( $P < .05$ ). *Conclusions:* NLP plus health education could reduce depression and anxiety immediately after intervention, but not at the 6-month follow-up. The intervention could also improve the awareness of stroke knowledge and benefit patients on quality of life and physical function. **Key Words:** Ischemic stroke—Neuro-Linguistic Programming—health education—randomized-controlled trial.  
© 2015 by National Stroke Association

---

Stroke is a common clinical disease which has a vascular origin and is characterized by fast-developing focal or global disruption of cerebral functions, which usually last for more than 24 hours and can be fatal to some patients.<sup>1</sup> Stroke has become a major cause of death and disability worldwide. It badly threatens human's physical and mental health and quality of life and imposes a heavy social and economic burden on individ-

uals, families, communities, and countries.<sup>2,3</sup> In recent 2 decades, the prevalence rate of stroke has been increasing because of the higher morbidity as well as the improvement of medical care.<sup>4,5</sup> This increase in trend will continue especially in China, a country with a fast-aging population.

In China, the treatment of stroke is mainly through medication, rehabilitation training, and acupuncture,

From the \*Department of Epidemiology and Health Statistics, School of Public Health, Huazhong University of Science and Technology, Wuhan, Hubei; †Personnel Department of The First Hospital of Putian City, Putian, Fujian; ‡Department of Neurology, Tongji Hospital, Wuhan, Hubei; and §Mental Health Center, Tongji Medical School, Huazhong University of Science and Technology, Wuhan, Hubei, China.

Received July 20, 2014; revision received September 30, 2014; accepted April 3, 2015.

This work was supported by the Joint School on Education, Sociology, Technology and Medical Research Paper Award in China, Medical Planning Project No. YX11007 (URL: <http://www.compe.cn/lxjyskyxylw/102165.html>). The authors thank Mister Weiqi

Tang's and Mister Zuyi Du's effort for this Award in Hongkong. Funding was provided by Yuanxuan college foundation in Hong Kong. The funder had no role in the study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Address correspondence to Zengzhen Wang, MD, Department of Epidemiology and Health Statistics, School of Public Health, Huazhong University of Science and Technology, 13 Hangkong Rd, Wuhan, Hubei 430030, China. E-mail: [wzzh@mails.tjmu.edu.cn](mailto:wzzh@mails.tjmu.edu.cn).

1052-3057/\$ - see front matter

© 2015 by National Stroke Association

<http://dx.doi.org/10.1016/j.jstrokecerebrovasdis.2015.04.009>

which focus on patients' physical functioning. Psychological status of patients is often ignored or inadequately treated and managed although many patients do experience a lot from psychological problems following stroke. Studies have shown that stroke patients experienced a great deal of emotional distresses such as depression, anxiety, loneliness, panic, and so on, of which depression and anxiety were the 2 most common problems.<sup>6</sup> Based on the previous studies, 35% to 68% of stroke patients had depression symptoms and 30% to 70% had anxiety symptoms in China.<sup>6-8</sup> A follow-up study by Lincoln et al showed that the prevalence of anxiety was still 29% and depression 33% at 5 years after stroke.<sup>9</sup> The reason why stroke patients easily generated anxiety and depression was complicated. On the one hand, stressful events, cognitive activities, family and social support, and other factors could disturb the psychological balance.<sup>10</sup> On the other hand, the neural pathway associated with the emotion regulation would be affected by the site of infarction or neurologic impairment.<sup>11</sup> Anxiety and depression after stroke can have negative effects on the physical rehabilitation of patients and make their prognosis worse.<sup>12</sup> To improve the health of stroke patients, the psychological rehabilitation should be given more attention.

There are various forms of psychotherapy explored to treat depression and anxiety in patients with stroke. Some studies indicated a positive effect of various psychological interventions,<sup>13-16</sup> whereas some found no significant effect.<sup>17,18</sup> Two recent Cochrane reviews, which aimed at determining whether any treatment (including various forms of psychotherapy) for anxiety and depression in patients with stroke can improve outcomes, showed no evidence for the benefit of psychotherapy.<sup>19,20</sup> Nonetheless, we still cannot conclude that there was no value of psychological intervention for stroke patients in view of the insufficient evidence. As psychological intervention for stroke patients has a broad developing space, we explored a novel approach to dealing with depression and anxiety following stroke. In addition, interventions which require skilled psychotherapists, long duration, and adequate intensity would not be appropriate in hospitals of China, because most patients would not take the initiative to seek the help of a psychotherapist, stroke patients may not tolerate a prolonged high-intensity intervention, and nurses are always lack of time and intervention skills. Therefore, a brief and easy-to-grasp intervention would be more feasible.

Neuro-Linguistic Programming (NLP) brief therapy was originally developed as a method of achieving personal excellence as well as a study of the ways of thinking and communication. This therapy contains many powerful techniques for remedying depression and anxiety and has been used successfully in the treatment of phobias, breast cancer, and external cephalic version.<sup>21-23</sup> As we know, NLP brief therapy has not been used in the

treatment of depression and anxiety after stroke. We selected some techniques which were easy to manipulate in the clinic, such as breathing skill to relax and increase strength, negative thought conversion skill, pressure-reducing method, coordination training method to control the heart rate, and meditation to increase mental energy. We supposed these NLP techniques would also be helpful for stroke patients.

Health education, which provides information of stroke risk factors, warning signs, symptoms, and treatments, is another important but often neglected aspect in stroke care.<sup>24,25</sup> A large sample survey in China showed that the degree of awareness of stroke risk factors and warning signs was very low (<30%) among stroke patients,<sup>26</sup> suggesting the importance of strengthening health education in clinical practice. A study by Teuschl et al<sup>27</sup> found that only 25%-56% of patients recognized their own symptoms as stroke and that stroke education increased the knowledge of warning signs and finally decreased prehospital time delays. A Cochrane review revealed that information provision for stroke patients improved knowledge of stroke and aspects of patient satisfaction, but there was no significant effect on number of cases of anxiety or depression in patients.<sup>28</sup> Simple psychological intervention cannot improve patient awareness of risk factors and emergent response to stroke whereas health education has limited effect on improving the psychological status.<sup>29</sup> Psychological intervention and health education play important but different roles in stroke care. Therefore, we combined NLP and health education and applied them in a randomized controlled trial among patients at an early stage after ischemic stroke.

## Aims

The aim of this study was to evaluate the effectiveness of a brief intervention, NLP brief therapy plus health education, in reducing depression and anxiety as well as improving the knowledge of stroke for patients with ischemic stroke.

## Methods

### *Study Design*

This was a randomized controlled trial, comparing the effect of a brief NLP plus health educational intervention to that of usual care. The study was approved by Ethics Committee of Public Health School of Tongji Medical College of Huazhong University of Science and Technology and has been registered at clinical trials (ChiCTR-TRC-11000000).

### *Patient Population*

This study was conducted at Tongji hospital affiliated to Huazhong University of Science and Technology in

Download English Version:

<https://daneshyari.com/en/article/5874962>

Download Persian Version:

<https://daneshyari.com/article/5874962>

[Daneshyari.com](https://daneshyari.com)