

## The Acupuncture Using Needling Method of Harmonizing Spleen-Stomach for Body Weight Management: A Study in Malaysia

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**KEYWORDS** Chinese Medicine. Circulation of Qi and Blood. *Huang Di Nei Jing*. Body Weight Reduction

**ABSTRACT** This paper reports the outcomes of the study on the effectiveness of harmonizing spleen-stomach needling method on body weight management in Malaysia. The study on 30 subjects was conducted with eight treatment sessions given over a period of one month, using the needling method with the focus on 10 acupoints that promote the normal function of the digestion and the circulation of qi and blood. The results showed 67 percent of the subjects successfully reduced their body weight, with the average reduction of 0.48 kg per subject. The study found the needling method was more effective for the subjects with their age under 25 years old, compared to the subjects with the age group of 25 – 50 years old. The needling method was proven effective in reducing body weight of the subjects in average. While proven effective on 30 subjects, study on more subjects might be required to reveal the real potential of the needling method on body weight management.

### INTRODUCTION

*Huang Di Nei Jing*, a classic traditional Chinese medicinal book, states that after the fluid entering human body, it will spread around by following its essence and qi (Di 2013). Then it will be transported to spleen, and then towards the lung. The lung has the function of regulating the flow of qi, blood and fluid towards whole body. When qi flows through the lung, it will connect and regulate water passage, and transport the water downwards to the bladder. As a result, fluid and essence will be distributed to the whole body - skin, hairs, and five “zang” organs.

When the functions of spleen and stomach are in the state of exuberance, the process of digestion and absorption are normal, leading to continuous transportation and transformation of essence, qi, blood and body fluid, bringing nutrients to the visceral and meridians, limbs and bones, tendons, muscle and skin. Thus, the shape of human body is affected by the trans-

portation and transformation of spleen and stomach (Sun 2012).

When the body is healthy, qi at spleen can be transported. The state will lead to sufficiency in the vital energy and blood, the solid state of muscles, and the maintenance of the healthy body weight. On the other hand, unhealthy spleen will cause the blockage of qi, and lead to the production of phlegm, dampness, edema and obesity. Spleen deficiency might lead to inadequate of qi and blood, which caused malnourishment extremely thin body as well (Sun 2012).

Overweight may cause by impairment and stagnation of spleen and stomach, accumulation of dampness, and production of phlegm (Zhu et al. 2010). Statistical analysis showed that there were 24 types of syndromes of obesity, which include phlegm with blood stasis, spleen deficiency with dampness, spleen and kidney yang deficiency, qi stagnation with blood stasis, as well as dampness with heat accumulation (Si et al. 2016).

The acupuncture using the needling method of harmonizing spleen-stomach is a combination of acupuncture on ten acupoints – Zhongwan [中脘](CV12), Quchi [曲池](LI11), Hegu [合谷](LI4), Zusanli [足三里](ST36), Diji [地机](SP8), Fenglong [丰隆](S40), Yinlingquan [阴陵泉](SP9), Sanyinjiao [三阴交](SP6), Xuehai [血海](SP10) and Taichong [太冲](LR3). Needling on

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these acupoints will invigorate spleen and lead to the elimination of dampness, activation of blood circulation, and dissolve of stasis (Li et al. 2014). The needling method is expected to regulate the ascending and descending of qi as well. The method was introduced by Zhi-Long Zhang, and had been tested on the patients with diabetic gastroparesis (Zhang P et al. 2007), peripheral neuropathy and for the health of kidney (Zhang P et al. 2007).

Although the needling method of harmonizing spleen-stomach has been practiced in China, the effect of the method on body weight management has not been reported, specifically in Malaysia. In this paper, the effectiveness of the needling method on body weight management is reported.

### Objectives of the Study

The main objective of this study is to confirm the effectiveness of the needling method of harmonizing spleen-stomach in weight management in Malaysia. The effectiveness of the practice on different age groups and genders were analysed as well. By far, the effectiveness of the practice has not been scientifically reported in another country, except in China.

### METHODOLOGY

The approval from university ethical committee was obtained before the study was conducted. All the subjects were acknowledged via consent letter regarding the study. Based on their perception about their body weight and the acceptance towards acupuncture, 30 subjects from the age 18 – 50 were selected.

A full course of treatment, which consists of 8 times of acupuncture sessions was conducted over 4 weeks (twice per week), with 30 minutes for each sessions. The needling method focused on acupoints from five meridian- Conception vessel [任脉], Hand yangming large intestine meridian [手阳明大肠经], Foot yangming stomach meridian [足阳明胃经], Foot taiyin spleen meridian [足太阴脾经] and Foot jueying liver meridian [足厥阴肝经]. The needling on this group of acupoints could lead to the normal circulation of qi and blood, which can further regulate the spreading of nutrient and body fluid to whole body.

The acupuncture was conducted with disposable needles. The needles were inserted into each acupuncture points, until the “depth of qi arrival” is obtained. The needles were retained at the acupuncture points for 30 minutes. Subjects were required to measure the body weight before and after the course of acupuncture treatment. The information were collected and analysed. In this study, the participants were not required to change their diet or increase their physical activity.

### RESULTS AND DISCUSSION

The analysis of data shown that the acupuncture with needling method of harmonizing spleen-stomach was effective in reducing the body weight of 20 subjects (66.7 %), with average reduction of 0.47 kg (Table 1). In average, more subjects with the age above 25 years old experienced loss in body weight (76.9 %), compared to subjects with the age 20-24 years old. The effectiveness of the needling method calculated by the average loss of body weight according to the age category was female (age 20 - 24) > female (age 25 -50) > male (age 25-50) > male (age 20-24). The percentage of subjects experiencing loss of body weight according to the age category was female (age 25-50) > male (age 20-25) > male (age 25 -50) > female (age 20-24). Statistical analysis showed significant differences of weight reduction between different age group ( $p > 0.05$ ) and different gender ( $p > 0.05$ ).

The body constitution of youth are in better state, with more balanced in yin and yang. Therefore, the acupuncture treatment might bring lesser effect to the subjects from the age group of 20 -24 years old. For the subjects with the age over 25 years old, the imbalanced body constitution had been developed. These subjects had poorer regulation in yin and yang, as well as qi and blood. Therefore, the older group of subjects showed more improvement in the loss of body weight after the acupuncture treatments.

Harmonizing spleen-stomach is important to cure diseases (Liu et al. 2017). The acupuncture method to harmonize spleen and stomach has been used to regulate qi of spleen and stomach, strengthen spleen to reduce dampness, harmonize stomach, and reduce turbid. By regulating

**Table 1: The age, average weight, weight change and the number of subject who have recorded reduction in body weight**

Age group	Gender (number of participant)	Average weight (kg)		Weight change		Number of subject with weight decrease
		Before	After	kg	%	
20 - 24	Male (3)	73.76 ± 18.91	73.33 ± 19.38	-0.43	-0.58	2
	Female (14)	55.86 ± 9.29	55.38 ± 8.93	-0.48	-0.86	8
25 - 50	Male (5)	84.12 ± 22.78	83.62 ± 21.63	-0.52	-0.62	3
	Female (8)	61.34 ± 9.82	60.88 ± 9.71	-0.46	-0.75	7

the spleen and stomach, the function of the transportation and transformation of qi and blood of spleen and stomach can be enhanced, which will lead to the regulation and activation of qi and blood in the meridian and collaterals. Once the qi and blood in the meridian and collaterals are properly circulated, the presence of qi and blood in the whole body will be regulated, promoting healthy blood circulation, preventing blood stasis, and assisting in the healing or keeping the organs in good condition. As a result, the vital substances in the body are able to flow in a proper manner, with a balance between yin and yang in the body can be achieved. With a balance between yin and yang, a proper function of body can be maintained, thus healthy body weight can be achieved (Cheng et al. 2016; Zhu et al. 2010; Zigman and Elmquist 2003). The recent study found the acupuncture method is useful in treating insomnia and promoting sleep (Huangfu et al. 2019), promoting health of diabetic patients (Miao et al. 2021) and effective in treating gastroparesis patients (Cheong et al. 2014).

From this study, 20 out of 30 subjects (66.7 %) experienced reduction in body weight. Body weight is closely related to the digestive system and metabolism of the body. So, maintaining good metabolism rate and healthy digestive system will lead a healthy body weight. When the digestive system and transportation system are well in place, qi is able to be transported from spleen, and muscle will be solidified together with blood, and by that, body weight can be moderated.

The awareness of body weight regulation was lacking in ancient time, as obesity was linked to a sign of richness. However, modern medicine has proven the relation between body weight and many diseases (Association 2015; Grover et al. 2015). Modern people use physical exercises (Martins et al. 2015), dieting (Sim et al.

2015), drugs (Khera et al. 2016) and the combination of these methods to control their weight. Some of these methods might harm our body if not appropriately conducted. The results from this study suggest that acupuncture by Chinese medicine can be another alternative to manage our body weight without harming the body.

## CONCLUSION

Acupuncture is one of the oldest and effective treatment method in Chinese medicine. In this study, the needling method of harmonizing spleen-stomach introduced by Zhi-Long Zhang is consider effective in reducing body weight in Malaysia. Therefore, it might be a good alternative to be used for the management of body weight.

## RECOMMENDATIONS

The sample size carried out in this research might not reflect the real effect of the needling method, thus study on more subjects should be conducted.

## CONFLICT OF INTEREST

The authors confirm there is no conflict of interest to declare.

## ACKNOWLEDGEMENT

The financial support for this project was provided by INTI International University (INTI-FHLS-09-03-2021).

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**Paper received for publication in August, 2021**  
**Paper accepted for publication in December, 2021**