

# Model Control of Cupping Treatment Therapy for Patient Satisfaction at the Community Health Center in Langsa City, Indonesia

Idwar Idwar<sup>1\*</sup>, Magfirah Magfirah<sup>2</sup>, Keumalahayati Keumalahayati<sup>1</sup>, Kasad Kasad<sup>1</sup>, Henniwati Henniwati<sup>2</sup>

<sup>1</sup>Department of Nursing, Ministry of Health Polytechnic of Langsa, Aceh, Indonesia; <sup>2</sup>Department of Midwifery, Ministry of Health Polytechnic of Langsa, Aceh, Indonesia

## Abstract

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**\*Correspondence:** Idwar Idwar. Department of Nursing, Ministry of Health Polytechnic of Langsa, Aceh, Indonesia. E-mail: [idwardwar4@gmail.com](mailto:idwardwar4@gmail.com)

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**BACKGROUND:** Traditional medicine cupping therapy is so popular for the community in Langsa city; therefore, it needs to standardise and government control.

**AIM:** To find out the supervision model of cupping therapy for patient satisfaction at the community health centre in Langsa City.

**METHODS:** The design of this study is a quasi-experiment. The design used was a non-randomized pretest-posttest control group design. The sample was chosen as many as 45 people, using a purposive sampling technique for patients visiting with inclusion and exclusion criteria. Univariate and bivariate analysis was used to see the effect of traditional cupping therapy supervision models on patient satisfaction. Then test paired t-test and One-Way ANOVA.

**RESULTS:** The paired t-test results showed a significant change in satisfaction with a value of  $p < 0.05$ . Group (SOP & supervision = 7.07) and (SOP = 3.13) each change with  $p$ -value = 0.0001. The group (control = 04) experienced a change in satisfaction with  $p$ -value = 0.02. ANOVA test results show there are differences between groups with a  $p$ -value of 0.0001. The difference in value includes SOP and supervision of the control of 7.46 with  $p = 0.0001$ . The SOP group for the control group was 3.53 with  $p$  0.004. The SOP & supervision group towards the SOP group was 3.93 with  $p$  0.001

**CONCLUSION:** The SOP group supervision and supervision model is effective in increasing satisfaction scores cupping therapy patients in the community health centre of the city of Langsa, Aceh Province, Indonesia.

## Introduction

According to the World Health Organization (WHO), as many as 80% of the total population in the Asian and African continents depend on traditional medicine [1]. Traditional medicine has developed in Indonesia as a form of public health efforts. Traditional medicine is one of the seventeen kinds of health efforts organised under Law No. 36 of 2009 concerning Health [2]. Traditional medicine that is

widely used by Indonesian people is Cupping Therapy. Cupping therapy is Traditional therapies used by various countries with various names such as Al-hijamah (Arabic), Pa Hou Kuan (China) or cupping (Europe and America [3], [4]. Cupping is usually used by patients with chronic diseases that can be caused by degenerative conditions, poor diet or stress [5]. The community uses cupping therapy to cure headaches, rheumatic aches, joint pain, rheumatism, colds [6], [7]. Cupping therapy is cheap alternative medicine, and it is also free from the side effects of

chemical drugs [8], [9]. Social-demographic factors, level of education, culture, and economy are the reasons for the community to switch to traditional treatment of cupping therapy [10]. Traditional treatment of cupping therapy in Indonesia is generally under the supervision of the Directorate of traditional health services. Cupping therapy in Indonesia lacks in standardisation and cupping practitioners. Monitoring model interventions need to be carried out through "Standard Operational Procedure Operational" (SOP) to assess patient satisfaction and service quality to the community.

The study aimed to analyse the effect of the supervision model of cupping therapy in increasing patient satisfaction in the work area of the Langsa Community Health Center, Aceh, Indonesia.

## Methods

This research was conducted in February until April 2019 in the working area of the Langsa Community Health Center. The design of this study was a quasi-experiment. The design used was a non-randomized pretest-posttest control group design. The population in this study were all patients who received cupping therapy who visited the clinic in the Langsa City area. The sample was chosen as many as 45 people, using a purposive sampling technique for patients visiting with inclusion and exclusion criteria. The inclusion criteria in this study were: respondents who carried out cupping therapy were willing to take part in the study and sign an informed consent, aged 30 to 70 years. The exclusion criteria for this study were respondents who lived outside the Langsa city area. Respondents were grouped into intervention groups and control groups. The intervention group was given standard operating procedures (SOP) and carried out supervision while the control group was given a standard intervention. The univariate analysis was performed to see the distribution of variables, as well as the normality test. The bivariate analysis was carried out to see the effect of cupping traditional therapy supervision models on patient satisfaction using paired t-test and One-Way ANOVA.

## Results

### Uni-Variate Analysis

The univariate analysis was carried out to see the distribution of variables and the normality test. The following are the characteristics of respondents based on age, gender, education, and occupation in each group.

**Table 1: Characteristics of respondents**

Variable	Group					
	SOP and Supervision		SOUP		Control	
	Mean ± SD		Mean ± SD		Mean ± SD	
	n	%	n	%	n	%
Age	45.5 ± 7.9		43.5 ± 8.2		48.1 ± 8.2	
Gender						
Man	6	40.0	7	46.7	6	40.0
Women	9	60.0	8	53.3	9	60.0
Education						
Elementary school	4	26.7	4	26.7	3	20.0
Junior high school	2	13.3	4	26.7	3	20.0
Vocational School	3	20.0	2	13.3	3	20.0
High school	2	13.3	1	6.6	3	20.0
DIII	1	6.7	0	0	0	20.0
S1	3	20.0	4	26.7	3	20.0
Work						
Civil servants	5	33.3	4	26.7	5	33.3
Employee	1	6.7	0	0	0	0
entrepreneur	3	20.0	3	20.0	3	20.0
Retired	2	13.3	2	13.3	2	13.3
IRT	4	26.7	6	40.0	5	33.3

Based on Table 1 above, the age range of respondents is between 40 and 50 years. Respondents were dominated by women. The three groups of respondents were dominated by undergraduate education, with the SOP and Supervision group (20%), the SOP group (26%), the Control group (20%). Based on employment, the SOP and Supervision groups were dominated by civil servants (33.3%). The number of SOPs is dominated by the work of housewives (40%). The control group is dominated by civil servants and housewives (33.3%). Furthermore, the normality test on the value of the pre-test of satisfaction in all respondents. Normality analysis using a skewness test.

**Table 2: Test the normality of the value of the pre satisfaction test using the skewness test**

Variable	n	Skewness	p	Information
Pre satisfaction test	45	0.02	0.06	Data is normally distributed

The results of the normality test show that the p-value obtained is 0.06. This value indicates that the value of the pre satisfaction test is normally distributed.

### Bi-Variate Analysis

The bivariate analysis was conducted to determine the relationship between independent variables and dependent variables. Analysis of bivariate analysis was performed by using a paired t-test and One-Way ANOVA. Paired t-test analysis is used if the same subject is measured more than once with the same instrument.

**Table 3: Paired t analysis of satisfaction tests in the SOP and supervision, SOP, and control groups**

Group	Satisfaction		difference	P
	Pretest	Test post		
	Mean ± SD	Mean ± SD		
SOP and supervision	55.20 0.67	62.27 0.6	7.07	0,0001
SOP	57.13 0.53	60.27 0.5	3.13	0,0001
Control	58.13 0.36	57.73 0.3	-0.4	0.02

The results of the analysis showed that overall satisfaction in each group showed a significant

change with a value of  $p < 0.05$ . Changes in the satisfaction of the SOP & supervision group and the SOP group indicate changes are positive. In the SOP & supervision and SOP groups, there was an increase in the value of satisfaction from the pre-test to the test post at 7.07 and 3.13. Thus, the SOP and supervision groups were shown to increase the increase in satisfaction scores. In the control group, there was a significant decrease with a p-value of 0.02. Furthermore, testing the differences in changes between groups was done by ANOVA test.

**Table 4: Anova analysis of changes in the value of satisfaction in the SOP & supervision group, SOP, and control**

Group	Satisfaction	F	P
	Mean $\pm$ SD		
SOP and supervision	7.06 $\pm$ 4.45	26.61	0,0001
SOP	3.13 $\pm$ 1.85		
Control	-0.40 $\pm$ 0.63		

The results of the analysis in Table 3 above show there are differences between groups with a p-value of 0.0001. This value shows there are differences in the value of satisfaction between treatment groups. The difference in change between the SOP group and the supervision of the control was 7.46 with  $p = 0.0001$ . The difference in change between the SOP group and the control was 3.53 with  $p$  being 0.004, while the difference in change between the SOP for the supervision of SOP was 3.93 with  $p$  0.001. Thus, the SOP & supervision group is the dominant group in increasing satisfaction scores compared to other groups.

## Discussion

Cupping is an alternative body treatment, disease prevention and treatment of disease in the community of the city of Langsa. The community uses cupping therapy to cure headaches, rheumatic aches, joint pain, rheumatism, colds [11], [7]. Many people have tried cupping to deal with complaints of health conditions, ranging from pain, hypertension to AIDS [12]. Three physiological mechanisms are affected by cupping therapy, the nervous system, system of haematology and immune system [13]. Traditional medicine cupping in Langsa dominated by patients who are well educated. The higher the level of education a person, then they tend to be more concerned about health, especially related to prevention and obtaining health information [14], [15]. Traditional treatment of cupping therapy is dominated by adult patients aged 40-60 years. Increasing age affects their health, where organ structure and function decline, so that people who older adults tend to use health services a lot compared to young age [16]. Traditional medicine cupping requires standardisation and cupping practitioners. The application of standardisation to traditional cupping

treatment influences patient satisfaction. The results of this study indicate a change in satisfaction between groups given intervention. The group applied Procedure Operational Standards (SOP) and supervision experienced changes in satisfaction values, while the control group did not experience changes in satisfaction values. Changes in patient satisfaction before and after intervention can be used as a measure of the success of traditional cupping therapy services. Application of Standards Operational Procedure (SOP) and supervision is more effective in increasing patient satisfaction. Application of traditional treatment of cupping therapy in urban area community health centre needs to be supervised. Supervision can be done by increasing the training of community health centre staff and implementing standardisation. The Ministry of Health through the National Health System in 2009 has included traditional, alternative and complementary medicine as part of the health effort subsystem [17]. Traditional health care has been included in the strategic plan of the Ministry of Health 2010-2014 in the form of increasing the research, development, and utilisation of traditional medicine.

In conclusion, the paired t-test results showed that overall satisfaction in each group experienced a significant change with a value of  $p < 0.05$ . Changes in SOP & supervision and SOP group satisfaction experienced positive changes. SOP & supervision and SOP groups increased the value of satisfaction from the pre-test to the test post at 7.07 and 3.13. SOP and supervision groups were shown to increase the value of patient satisfaction.

ANOVA test results show there are differences between groups with a p-value of 0,0001. The difference in values includes the SOP group and supervision of the group control of 7.46 with  $p = 0,0001$ . SOP group for control was 3.53 with  $p$  equal to 0.004. SOP group & supervision of the SOP group of 3.93 with  $p$  0.001. The SOP group supervision and supervision model is effective in increasing the satisfaction value of cupping therapy patients in the Langsa Community City Health Center, Aceh Province, Indonesia.

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