Asia-Pacific Chiropractic Journal

CLINICAL EVIDENCE

Clinical efficacy of *Guasha Therapy* for shoulder pain.

Enrico Santos

Abstract: Traditional and alternative forms of medicines have been utilized in the Philippines long before the wide-spread use of pharmaceutical products. This is not limited to the use of herbal plants, but is also involved in the growing scope of the alternative medicines including the guasha therapy, acupuncture, ventosa, chiropractic medicine and taping medicines. This study aims to determine the clinical efficacy of the Philippine carabao horn used in guasha therapy in reducing the level of shoulder pain experienced by the athletes of University of Makati as compared to the use of spoon for the spoon therapy. Guasha therapy can be applied to virtually any part of the body; however, there are certain strokes for each muscle and joint for it to become effective. The guasha therapy has gained popularity in the recent years, but there is paucity of studies and evidences of its use. The limited information available on the guasha therapy suggests improved function and decrease in the level of pain. Guasha therapy appears to have been proven effective and useful in other countries, despite these, the Philippines still lack knowledge, researches and clinical trials about the therapy. Scraper tools from other countries are made up of ceramic plates, jade and ox horn. As observed by the researcher these raw materials are composed of protein called the keratin. The researcher performed a thorough study to find a material that is closely related to the composition of other scraper tool, wanting to utilize the available raw materials in the Philippines, the researcher decided to use the Philippine carabao horn.

Indexing Terms: Guasha Therapy; carabao horn; community health; Philippines.

Introduction

This study aimed at assessing the effectiveness of guasha therapy for shoulder pain. The researcher assessed the level of pain and difficulty of the forty (40) University of Makati athletes who served as the respondents of the study. The results of the survey served as a basis in constructing a guasha guideline which encompasses information regarding guasha, shoulder pain, methods on how to perform such therapy and technique to fully utilize the alternative medicine for different body pains.

'... guasha therapy has been efficacious to decrease shoulder pain.The levels of pain of the respondents were decreased after they underwent a session of guasha therapy on their shoulder.'

Quick Tap or Scan:

Methodology

The study was classified as a true experimental research. The true experimental study was adopted by the researcher to avoid bias in determining the efficacy of the guasha therapy compared to the spoon therapy. Purposive sampling technique is used when samples are drawn based on the judgement of the researcher. Prior to the gathering of data, the researcher established a set of criteria The criteria are as follows:

i) pain onset prior to 150º of active shoulder elevation in any plane

ii) positive empty can test indicating possible supraspinatus involvement

iii) positive Hawkins-Kennedy test indication possible external impingement

iv) positive in TCM diagnosis for shoulder pain,

v) subjective complaint of difficulty performing activities of daily living and

vi) ages between 18 to 50 years old.

A researcher-adopted survey questionnaire was prepared to assess the level of pain of the respondents namely: SPADI, ROM and VAS. After gathering the needed information, data were treated and analyzed using the appropriate statistical tests. The statistical tests are used to come up with the desired result: weighted mean and analysis of variance.

Results and discussion

Analyzing the data gathered, using the weighted mean to obtain the level of pain of the respondents according to SPADI before the therapy, result revealed 3.57 interpreted as severe pain and after guasha administration, it revealed a 1.3 weighted mean interpreted as no pain.

This indicates that guasha therapy was effective on lessening the pain level of the respondents. Further, the level of difficulty of the respondents according to SPADI before administration of guasha therapy revealed a 3.38 weighted mean, interpreted as difficult. After administration of guasha, 1.15 weighted mean was noted revealing a not difficult interpretation. This further implies that the guasha therapy using the Philippine carabao horn was efficient in decreasing the difficulty of the respondents upon performing activities of daily living.

Results of weighted mean for the level of pain of the respondents according to ROM revealed 3.34 weighted mean interpreted as moderate pain before the therapy and 1.15 weighted mean interpreted as no pain after the therapy. Further, level of pain according to VAS revealed 3.35 interpreted as hurts whole lot before therapy and 0.35 interpreted as no hurt after the therapy.

To reiterate, the result of the study revealed that the guasha therapy was efficient in lessening the level of pain of the respondents. On the other hand, results on the weighted mean of the controlled group before and after administration of the spoon therapy revealed 4.00 interpreted as severe pain and 1.85 interpreted as mild pain after therapy. This denotes that spoon therapy was effective on lessening the pain level of the respondents but up to the level of no pain at all. Level of difficulty of the respondents before the therapy revealed 3.63 mean interpreted as difficult and after the therapy revealed 1.79 interpreted as not difficult.

This further implies that spoon therapy helped in decreasing the level of difficulty of the respondents. Furthermore, results on weighted mean on the level of pain of the respondents according to ROM revealed 3.60 as severe pain before the therapy and 1.58 as no pain after the therapy. In addition, level of pain according to VAS denotes 4.10 interpreted as hurts whole lot and 1.75 interpreted as hurts little more. This implies that spoon therapy was effective on decreasing the level of shoulder pain of the respondents.

In addition, the researchers also used analysis of variance to test the significant difference on the level of pain of the respondents before and after guasha and spoon therapy. The result of ANOVA revealed that there is a significant difference in the level of pain of the respondents before and after administration of guasha therapy. This indicates that guasha therapy affects the pain level of the respondents in general.

Most likely, the result would suggest that administration of the guasha therapy decreases the pain level of the respondents. Further, the result of ANOVA revealed that there is a significant difference in the level of pain of the respondents before and after administration of spoon therapy. This indicates that spoon therapy affects the pain level of the respondents. Furthermore,

the result of the study revealed that the spoon therapy was effective to decrease the shoulder pain of the respondents.

Interpreting the result of the data gathered, the researchers made a guasha guideline based on the result of the study. Since the result of the study revealed that there is a significant difference on the level of pain of the respondents before and after guasha therapy which indicates that the therapy was effective, the researcher planned to disseminate the guasha guideline throughout the university to increase the athletes' knowledge on the methods on how to perform guasha to decrease the pain of the shoulder.

Figures and Tables

Addressing Problem 1: What is the level of pain of the controlled group before and after spoon therapy in terms of:

1.1 Shoulder pain and disability index (SPADI)

Table 1.1
Result of Weighted Mean on the Level of Pain of the Respondents According to SPADI Before and After Guasha Therapy

Level of pain upon performing...	Before		After	
	WM	I	WM	I
1. At its worst?	4.00	SP	1.75	NP
2. When lying on the involved side?	3.45	SP	1.25	NP
3. Reaching for something on a high shelf?	3.45	SP	1.10	NP
4. Touching the back of your neck?	3.50	SP	1.25	NP
5. Pushing with the involved arm?	3.45	SP	1.15	NP
General Weighted Mean	**3.57**	**SP**	**1.3**	**NP**

Legend:
WM = Weighted Mean
R = Rank
I = Interpretation
SP = Severe Pain
NP = No Pain

Table 2.2
Result of Weighted Mean on the Difficulty of the Respondents According to SPADI Before and After Spoon Therapy

Level of difficulty upon performing...	Before		After	
	WM	I	WM	I
1. Washing your hair?	3.60	VD	1.75	ND
2. Washing your back?	3.60	VD	1.75	ND
3. Putting on an undershirt or jumper?	3.65	VD	1.80	SD
4. Putting on a shirt that buttons down the front?	3.55	VD	1.75	ND
5. Putting on your pants?	3.70	VD	1.85	SD
6. Placing an object on a high shelf?	3.60	VD	1.85	SD
7. Carrying a heavy object of 10 pounds (4.5 kg)?	3.70	VD	1.85	SD
8. Removing something from your back pocket?	3.65	VD	1.70	ND
General Weighted Mean	**3.63**	**VD**	**1.79**	**ND**

Legend:
WM = Weighted Mean
R = Rank
I = Interpretation
VD = Very Difficult
ND = No Difficult

1.2 Range of motion (ROM)

Table 2.3
Result of Weighted Mean on the Level of Pain of the Respondents According to ROM Before and After Spoon Therapy

Level of Pain upon performing...	Before		After	
	WM	I	WM	I
1. Flexion	3.40	SP	1.50	NP
2. Extension	3.40	SP	1.50	NP
3. Abduction	3.40	SP	1.45	NP
4. Adduction	3.40	SP	1.45	NP
5. Outward Rotation	4.00	SP	1.80	MiP
6. Inward Rotation	4.00	SP	1.80	MiP
General Weighted Mean	**3.60**	**SP**	**1.58**	**NP**

Legend:
WM = Weighted Mean
R = Rank
I = Interpretation
SP = Severe Pain
NP = No Pain

1.3 Visual analogue scale (VAS)

Table 2.4
Result of Weighted Mean on the Level of Pain of the Respondents According to VAS Before and After Spoon Therapy

Pain Level	Before		After	
	WM	I	WM	I
1. Pain Scale	4.10	HWL	1.75	HLM
General Weighted Mean	**4.10**	**HWL**	**1.75**	**HLM**

Legend:
WM = Weighted Mean
R = Rank
I = Interpretation
HWL = Hurts Whole Lot
HLM = Hurts Little More

Addressing Problem 3 : Is there a significant difference between the level of pain of the experimental group before and after the guasha therapy?

1.1 SPADI

Table 3.1
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Guasha Therapy According to SPADI

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	7.543	0.008	Reject	Significant

$\alpha = 0.05$

1.2 ROM

Table 3.2
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Guasha Therapy According to ROM

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	4.500	0.125	Accept	Not Significant

α = 0.05

1.3 SPADI, ROM AND VAS

Table 3.3
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Guasha Therapy

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	9.282	0.000	Reject	Significant

α = 0.05

Addressing Problem 4 : Is there a significant difference between the level of pain of the experimental group before and after the spoon therapy?

Table 4.1
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Spoon Therapy According to SPADI

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	4.474	0.038	Reject	Significant

α = 0.05

1.2 ROM

Table 4.2
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Spoon Therapy According to ROM

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	225.333	0.000	Reject	Significant

α = 0.05

1.3 SPADI, ROM AND VAS

Table 4.3
Result of Analysis of Variance on the Significant Difference in the Level of Pain of the Respondents Before and After Spoon Therapy

Variable	Computed F-Value	p-value	Decision on Null Hypothesis	Interpretation
Pain Level	3.707	0.023	Reject	Significant

α = 0.05

Conclusions

The researcher arrived at the following conclusions based on the summary of findings:

A. Generally, severe pain was being experienced by the respondents. Guasha therapy helped lower the pain level to mild pain or no pain at all.

B. The respondents are having a difficult time to perform activities before administration of guasha therapy and yet after the therapy, no difficulty to perform tasks was observed.

C. Most of the result denotes significant difference in the level of pain of the respondents before and after the administration of guasha therapy.

Given the findings of the study, it is therefore concluded that guasha therapy as an alternative and complementary medicine has been efficacious to decrease shoulder pain. It is revealed that the levels of pain of the respondents were decreased after they underwent a session of guasha therapy on their shoulder. Therefore, the hypothesis is rejected.

Acknowledgements

Late PROF. TOMAS B. LOPEZ JR, the president of the *University of Makati*, for being a good and benevolent leader, for approving my scholarship.

DR. HAEDEOK LEE, the Executive Director of the *Center of Complementary and Alternative Medicine*, for the guidance and for being highly knowledgeable and never hesitant to impart the ideas and his words of encouragement. An expert in complementary and alternative medicine, for the excellent and insightful validation, for the research to be able to produce the proper questionnaire and eventually get the accurate results that is aligned to this study.

Enrico Santos

Professor and Executive Director

Graduate and New Programs

College of Allied Health Studies

University of Makati

enrico.santos@umak.edu.ph

Declaration

This paper was submitted (ID #117) to the 2016 ACC-RAC scientific symposium. Ethics approval is documented. Formal approval was granted by UMAK to publish this paper as credited to the Institution, along with the full thesis published in these pages as a MASTER**CLASS**.

Cite: Santos E. Clinical efficacy of *Guasha Therapy* for shoulder pain. Asia-Pac Chiropr J. 2020;1.2:online only. URL https://apcj.rocketsparkau.com/guasha-therapy--santos/

Bibliography

Bentley, Bruce. Health Traditions. Retrieved July 11, 2014. From www.healthtraditions.com. 2013.

Bentley, Bruce (2013). Retrieved October 2, 2014. From http://www.healthtraditions.com.au/essays/gua-sha.htm.

Beverlyhills, S. (2010-2012). Susan's Skin and Body Care: Since 1975. Retrieved July 14, 2014. From http://www.susansbeverlyhills.com/index.php/chinese-guasha-facial/99-guasha/guasha/160-chinese-guasha-facial

Bodeker, G., Ong, C. K., Grundy, C., Burford, G., & Shein, K. (2005).

WHO Global Atlas of Traditional, Complementary an Alternative Medicine. Text Volume. WHO Publications.

Braun M. et al (2011). Effectiveness of Traditional Chinese Guasha Therapy in Patients with Chronic Neck Pain: A Randomized Controlled Trial. (pubmed.gov). Retrieved from www.ncbi.nlm.nih.gov/pubmed/21276190.

Chiu J.Y. et al. (2010). Effects of Guasha Therapy on Breast Engorgement: A Randomized Controlled Trial. (pubmed.gov). Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20220605.

Cole, E. (2002, June). Pain Management: Classifying, Understanding and Treating Pain. Clinical Review Article, pp. 23-24.

Diagnosis Study Guide (2014). Retrieved October 13, 2014. From http://www.amazon.com/Traditional-Chinese-Medicine-Diagnosis-Study/dp/0939616645.

Discovering Wellness. Guasha. Retrieved July 13, 2014. From http://discoveringwellness.thewrightdesignplus.com/guasha.html Encyclopaedia Britannica. Neuritis. Retrieved July 14, 2014. From http://global.britannica.com/EBchecked/topic/410590/neuritis#ref754799. 2013.

First Health of Andover (2010). Guasha: Good for What Ails You. Retrieved July 14, 2014. From http://www.firsthealthofandover.com/APGuaSha.htm

Happy Clover. Acupuncture and Herbal Medicine. Retrieved July 14, 2014. From http://happycloveracupuncture.webs.com/apps/blog/show/prev?from_id=4915743

Herbal Shop (2013). Retrieved October 2, 2014. From http://www.herbalshop.com/Acupressure/Acupressure_45.html.

Jadad, R. Randomized Controlled Trials: A User's Guide. Retrieved July 14, 2014. From www.1.cgmh.org.tw. 2000.

Krucik, G. Retrived October 2, 2014. From http://www.healthline.com/symptom/shoulder-pain. 2013.

Kwong K. K. et al. (2009, Aug 28) Bioluminescence Imaging of Heme Oxygenase-1 Upregulation in the Guasha Procedure. (pubmed.gov).Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/19718012

Lauche, et al. (2012). Randomized Controlled Pilot Study: Pain Intensity and Pressure Pain Tresholds in Patients with Neck and Low Back Pain Before and After Traditional East Asian "Guasha" Therapy. (pubmed.gov). Retrieved from www.ncbi.nlm.nih.gov/ pubmed/22928824.

Liu Zuo Yan (2010). Observation of Timeliness Effect of Guasha Treatment on Exogenous Fever for Abatement of Fever. (Unpublished master's thesis).

Loworn, (n.d.). Guasha Treatment of Infantile Fever due to Exopathy Anti-Pyretic Effect of Clinical Observation. Retrieved from qwww.research-degree-thesis.com.

MedicineNet.com. Gender: Some Painstaking Differences. Retrieved July 13, 2014. From http://www.medicinenet.com/script/main/art.asp?articlekey

MedlinePlus. Pain. Retrieved July 11, 2014. From http://www.nlm.nih.gov/medlineplus/pain.html. 2013

Modern Cosmetology Centre (2007-2013). Massage Guasha. Retrieved July 16, 2014. From http://www.aura-clinic.com/en/services/massage-guasha.

Myeong Soo Lee, et al. (2010). Using Guasha to Treat Musculoskeletal Pain: A Systematic Review of Controlled Clinical Trials. (PMC). Retrived from www.ncbi. nlm.nih.gov/pmc/articles/PMC28274621.

National Institute for Health (2014). Retrieved October 2, 2014. From http://www.niams.nih.gov/Health_Info/Shoulder_Problems/shoulder_problems_ff.asp.

National Statistical Coordination Board. Retrieved July 12, 2014. From www.nscb.gov. 2010. Nielsen, A. (n.d). Guasha: A Clinical Overview. Ejournal Chinese Medicine Times, p. 5

Nielsen, et al. (2007). The Effect of Guasha Treatment on the Microcirculation of Surface Tissue: A Pilot Study in Healthy Subjects. (pubmed.gov). Retrieved from www.ncbi.nlm.nih.gov/ pubmed/17905355
.
Nielsen, et al. "The Effect of Guasha Treatment on the Microcirculation of Surface Tissue: A Pilot Study in Healthy Subjects" Explore September/October 2007, Vol. 3, No.5. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/17905355.

NHS Choices (2012). Retrieved October 2, 2014. From http://www.nhs.uk/Conditions/shoulderpain/Pages/Treatment.aspx.

OrthoInfo. Shoulder Pain. Retrieved August 18, 2014. From http://orthoinfo.aaos.org/topic.cfm?topic=a00065.

Pain Relief Professionals (2013). Retrieved October 8, 2014. From http://www.painreliefprofessionals.com/shoulderpain.htm.

Philippine Department of Trade and Industry (2014). Retrieved August 18, 2014. From http://server2.dti.gov.ph/dti/index.php?p=175
Rees, Allan (2001). The Complementary and Alternative Medicine. Information Source Book. 1st Edition. Greenwood Publishing Group.

Regenexx.com (2014). Retrieved October 8, 2014. From http://www.regenexx.com/the-regenexx-procedures/shoulder-surgery-alternative/

Schwickert, M. E. et. al. (2007). Gua Sha for migraine in inpatient withdrawal therapy of headache due to medication overuse. Retrieved July 12, 2014, from pubmed.gov: http://www.ncbi.nlm.nih.gov/pubmed/17971671

Shoulder pain: patient.co.uk. Retrieved July 15, 2014. From. http://www.patient.co.uk/doctor/Shoulder-Pain

Snouffer, et al (2009). Traditional Chinese medicine's scraping treatment put to the test. (scmp.com). Retrieved from http://www.scmp.com/lifestyle/health/article/1056423/tcm-scraping-treatment-put-test

Snouffer, E. (2012, October 9). Traditional Chinese medicine's scraping treatment put to the test. South China Morning Post: Health, p. 1

Starkey, J. (2011). Scrape Away Pain: Guasha. (www.doctorz.com) Retrieved from http://www.doctoroz.com/blog/jamie-starkey-lac/scrape-away-pain-gua-sha

Treatment and Management Guide (2011): wedmd.com Retrieved July 14, 2014. From www.webmd.com/pain-management/guide/pain-management-treatment-care

The Department of Pain Medicine & Palliative Care: StopPain.org. Definitions and Types of Pain. Retrieved July 14, 2014. From http://www.healingchronicpain.org/content/introduction/definitions.asp. 2011.

Wu, Ming (2012). Guasha. In Wu Healing Center. Retrieved July 16, 2014. From http://wuhealing.comen/info/gua-sha.

Xiuqin, Zhang (2013, February 21). Misconceptions about Chinese guasha therapy. People's Daily Online. pp. 1-2

About.com. (2014) Retrieved October 2, 2014. From http://orthopedics.about.com/cs/shouldersurgery/a/shoulderpain.htm.

Yin Yang House (2014). Retrieved October 8, 2014. From http://www.yinyanghouse.com/conditions-treated/alternative-natural-options-for-shoulder-pain