

STRENGTHENING OF LEG MUSCLES WITH SELF STIMULATES MASSAGE IN THAI TRADITIONAL MEDICINE IN SCHOOL AGE CHILD

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ABSTRACT

The school children lack movement, a private world, obesity issues, weak, fatigue, no power, no going out to play, insufficient sleep cause cumulative toxicity in children, more a cold, more allergy symptoms, children will not be refreshed, learning is even worse. All Issues because muscle problems are not strong. Those are impact of growth, increase height and accident in School Age Child. Aim: To study Strengthening of leg muscles with the self stimulates Thai health massage in Thai traditional medicine in the school age child. Quasi-experimental research used the school age child 25 samples; assessment of leg muscles strength measurement (Pull back) at lower left and right leg before and after the self stimulates Thai health massage. Thai health massage 1 time (30 minutes) per week total 5 times. Opening Child Music, comparatives analyze leg muscles strength measurement data before and after trial with compare mean Paired-Sample t-test. Results: The test compares left and right lower leg muscles strength measurement (pull back) before and after the self stimulates Thai health massage in the school age children, 30 minutes each time: 3 weeks, have statistically significant differences 0.05 in 1st week (L:0.015, R: 0.042); 2nd week (L: 0.005) and 3rd week (L:0.000, R: 0.000). Leg muscles strength measurements (pull back) were more after than before the self stimulates Thai health massage in the school age child: left leg muscles strength measurement(S) 1st week, 2nd week, 3rd week □ before (2.24) and □ after (2.56, 2.68, 2.84 respectively); right leg muscles strength measurement (S) 1st week, 2nd week, 3rd week □ before (2.28) and □ after (2.52, 2.56, 2.88 respectively). Conclusions: Strengthening of left and right lower legs muscles before and after the self stimulates Thai health massage in the school age child have significant difference 0.05: in 1st week; 2nd week and 3rd week. The self stimulates Thai health massage in the school age child helps strengthening of leg muscles.

Keywords: Strengthening, Leg Muscles, Self Stimulates Massage, School Age Child

INTRODUCTION

School Age Child (6-12 years old) has growth and movement to go in the complete vertical direction. Stabilizer activities and body movement will focus on the use of large muscles, legs, include walking on the heels, walk on foot reverse, single leg jump, start a 2-wheels bike, stand with one leg and close to the eyes, stand with long jump etc., as practice skills strengthens the leg muscles. This will start the direction of learning, must be exercise, less parental dependency, interested friends outside. Outdoor play is very important, helping both physical and mental health, endurance Training, express emotions, relax tension, and learn to love groups, losing and win. The influences of television, smartphone, computer and Internet have a baby to stay with seeing the list TV and playing the game. The school children lack movement, a private world, obesity issues, weak, fatigue, no power, no going out to play, insufficient sleep cause cumulative toxicity in children, more a cold, more allergy symptoms, children will not be refreshed, learning is even worse. All Issues because muscle problems are not strong. Those are impact of growth, increase height and accident in School Age Child [1], [2], [7].

Principles of Thai health massage in Thai Traditional Medicine help the system of the body back to work better to include blood circulatory system, Oxygen and food Delivery to feed the body, Lymphatic system, receiving and sending toxins and the waste produced by the body to get rid of body, Nervous system, awake to feel more sensitive, Muscular system, to be stronger, to increase tolerance, Respiratory system, Dermatological system and Relaxing mind. The self stimulates Thai health massage improves physical fitness, reduce the risk of injury and reduce the pain of the muscles, increase blood and nutrients to more tissue, helps muscles and nervous systems work together better. Children will more learn and help themselves [3], [4], [8], [9].

Objective

To study Strengthening of leg muscles with the self stimulates Thai health massage in Thai traditional medicine in the school age child.

Hypothesis

Strengthening of leg muscles before and after the self stimulates Thai health massage in the school age child has difference.

Literature & Theory

Thai health massage to strengthen the leg muscles [3], [4], [5].

Benefits of health massage use as a massage to promote physical health and mental state to complete, that will help the red and black blood circulation and Lymphatic system, flow up and down more convenient, strong bones, better performance muscles, eliminate waste in the muscles out of skin, increased flexibility, feeling relaxed and comfort, reduce stress and more actives.

How to Massage Strengthen Leg Muscles

1. Sit down straight leg using the left and right thumb press down, Four fingers support the leg, Basic massage left and right leg, Open “Wind Door” (Palm press straight groin turn The side of the thumb to body and four fingers press Thigh Lean forward count 1-10 then release)
2. Twist waist Sitting posture and lower right leg toward leftmost on left leg, Right outer leg massage and left inner leg massage, do the switch lower left leg toward rightmost on right leg, Left outer leg massage and right inner leg massage.

Relax after a massage posture: Ankle sprain exercise posture is Thigh toe posture

Preparation: Standing clutch wall, Split foot equal width of shoulder, Bend your normal leg up and place it on your knee, Toe foot tip of the other side Straighten up, with tense back knee leg and curb bottom, keep calm count 1-10, then return to preparation posture, then switch the other legs

- Advice:**
1. should regularly general fitness
 2. Sleep well enough every day
 3. Should eat foods that are beneficial

Related Work

1.1 The Effects of Applied Thai Massage on Physical Fitness among Athletes: A Pilot Study

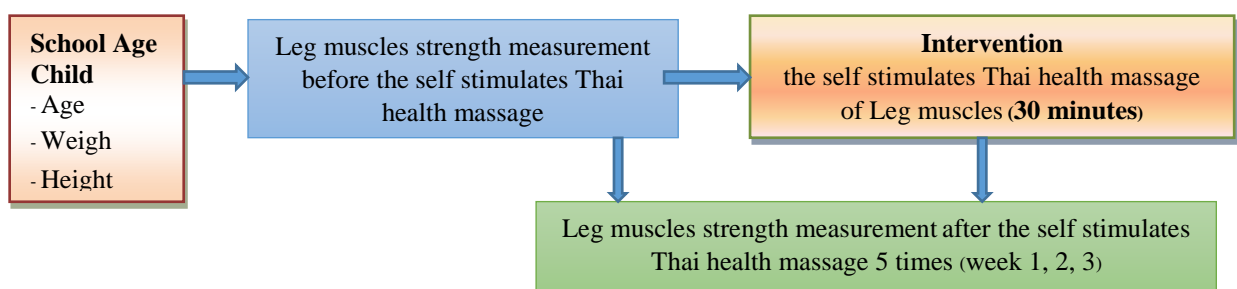
Chanawong Hongsuwan, Wichai Eungpinichpong, Uraivan Chatchawan (2014) found that seven physical fitness tests consisted of the sit-and-reach test (flexibility), handgrip (strength), 40-yards technical test (agility), 50-meters speed (speed), sit-ups and push-ups (muscles endurance), multistage fitness test (VO2 max) were measured before and a day after 3 sessions of Thai massage, all of the physical fitness tests were significantly improved after the three sessions of Thai massage [5].

1.2 Comparison of Skin Appearance with Appropriate Time in Self Reflexology Area with Thai

Traditional Medicine in Geriatrics

Natsinee Sansuk (2017) found that Pearson Chi-Square test, during the three-time results in change on the skin appearance of age and mood the elderly a statistically significant no difference 0.10, Fifth Inner Leg Signal Reflexology, ten seconds press, have appropriate time to stimulating affect the skin appearance at self-reflexology area of Thai Traditional Medicine in Geriatrics [6].

Figure 1
The conceptual framework of research



METHODOLOGY

Research is quasi experimental research. The samples were selected based on inclusion and exclusion criteria, the experimental group of 25 school age child samples; assessment of leg muscles strength measurement (Pull back) at lower left and right leg before and after the self stimulates Thai health massage.

Recording leg muscles strength measurement (Pull back) at lower left and right leg before the self stimulates Thai health massage in the school age child, Intervention is leg muscles Thai health massage in Thai Traditional Medicine and recording leg muscles strength measurement (Pull back) at lower left and right leg after the self stimulates Thai health massage 1 time (30 minutes) per week total 5 times. Opening Child Music, comparatives analyze leg muscles strength measurement data before and after trial.

Inclusion criteria:

As a child 6-12 years old, either male or female, can do daily routines, volunteer to join the project by parental consent.

Exclusion criteria:

The group has a moving problem; Children with osteoporosis; Special Children Group and wants to end the experiment.

Precautions Massage:

Caution for The case of tearing the muscles or the control of the expert

The inner shin bones of lower leg do not force press, it may cause bruising nerve and ankle bones cannot move.

Data Collection:

Interview and Recording form for assessment of leg muscles strength measurement (Pull back) at lower left and right leg before and after the self stimulates Thai health massage in the school age child by research assistant, researcher and specialists of Thai health massage, teaching self stimulates Thai health massage of the school age child was correct. The study areas were Watt Swat Wari Sima Ram School and Watt Swat Wari Sima Ram community, Dusit, Bangkok, Thailand.

Data analysis:

Analysis of experimental data [10] using frequency, percentage, mean, standard deviation, coefficient of variation. Compare Means Paired-Sample t-test results comparison of processing leg muscles strength measurement between before and after the self stimulates Thai health massage.

Data representation:

The test compares leg muscles strength measurement before and after the self stimulates Thai health massage by implied 1(less strong), 2(moderate) and 3(very strong).

RESULTS

General information of school age child samples

School age children, 25 samples, who are interested in participating by parental consent have the average age, weigh, height 9.8, 33.43, 134.6 (respectively); standard deviation 1.29, 8.54, 9.6 (respectively).

Data of leg muscles strength measurement (Pull back)

1. Data distributions are normal curve.
2. Paired Samples Correlations test compare means by Pearson's Product Moment Correlation Coefficient (r), significance level α is 0.05. Pearson's Correlation Coefficient (r) of leg muscles strength measurement at lower leg (left & right) measure before and after the self stimulates Thai health massage in the school age children at 1, 2, 3 week. From Table 1.

Table 1
Pearson's Correlation Coefficient (r) of leg muscles strength measurement (S)

Experiment	Paired of compare means	n	Correlation (r)	Relationship level
Week 1	1 pair before and after left leg (S) week 1	25	.589*	moderate
	2 pair before and after right leg (S) week 1	25	.593*	moderate

Week 2	3 pair before and after left leg (S) week 2	25	.413*	low
	4 pair before and after right leg (S) week 2	25	.112	-
Week 3	5 pair before and after left leg (S) week 3	25	.263	-
	6 pair before and after right leg (S) week3	25	.133	-

* Significant level .05

A comparison of leg muscles strength measurement (Pull back)

Statistics Compare Means Paired-Sample t-test, comparison of leg muscles strength measurement at lower leg (left & right) with the three-time measure on before and after the self stimulates Thai health massage in the school age children at 1, 2, 3 week each long 30 minutes, by implied 1(less strong), 2(moderate) and 3(very strong). From Table 2.

Table 2
A comparison of leg muscles strength measurement (S)

Experiment	leg muscles strength	n	Before massage		After massage		t
			□	S.D.	□	S.D.	
Week 1	left leg (S) week 1	25	2.24	.83	2.56	.65	.015*
	right leg (S) week 1	25	2.28	.79	2.52	.65	.042*
Week 2	left leg (S) week 2	25	2.24	.83	2.68	.48	.005*
	right leg (S) week 2	25	2.28	.79	2.56	.51	.065
Week 3	left leg (S) week 3	25	2.24	.83	2.84	.37	.000*
	right leg (S) week3	25	2.28	.79	2.88	.33	.000*

* Significant level .05

CONCLUSION AND FUTURE WORK

School age children, 25 samples, who are interested in participating by parental consent have the average age 9.8 year, average weigh 33.43 kilograms, average height 134.6 centimeters. Data distributions are normal curve.

The test compares left and right lower leg muscles strength measurement (pull back) before and after the self stimulates Thai health massage in the school age children, 30 minutes each time: 3 weeks, have statistically significant differences 0.05 in 1st week (L:0.015, R: 0.042); 2nd week (L: 0.005) and 3rd week (L:0.000, R: 0.000).

Leg muscles strength measurements (pull back) were more after than before the self stimulates Thai health massage in the school age children: left leg muscles strength measurement(S) 1st week, 2nd week, 3rd week □ before (2.24) and □ after (2.56, 2.68, 2.84 respectively); right leg muscles strength measurement (S) 1st week, 2nd week, 3rd week □ before (2.28) and □ after (2.52, 2.56, 2.88 respectively).

Conclusion:

Strengthening of left and right lower legs muscles before and after the self stimulates Thai health massage in the school age children have significant difference 0.05: in 1st week; 2nd week and 3rd week. The self stimulates Thai health massage in the school age child helps strengthening of leg muscles. The future work suggests both upper and lower legs together.

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REFERENCES

- [1] Waraporn Boonchiang (2013). **School Health**. Chiang Mai: *Chiang Mai University Press*. Pp. 17-20.
- [2] Boonpien Chantawatana, Fongkham Tilakvichai, Panjang Sukjaroen, Wilai Lerttamtaewee, Srisomboon Musiksukhon, editor; Faculty of Nurse. Mahidol University. (2 0 1 0). **Nursing for Children Textbook Volume 1**. Bangkok: *Pre-one*. Pp. 171-180.
- [3] Pronnapa Kijnitshe & Kitti Lisiam (2009), **Manual massage courts of Applied Thai Traditional Medicine**, Ayutthaya: *Partnership printer Ayudhya*, Thailand. Pp. 30-55.
- [4] Pennapha thamcharent & faculty (2006), **Training Series manual Thai massage Training manual Thai massage court**, Bangkok: *Three charentpanish (Thailand) Limited*, Thailand. Pp. 20-25.
- [5] Chanawong Hongsuwan, Wichai Eungpinichpong, Uraiwan Chatchawan (2014), The Effects of Applied Thai Massage on Physical Fitness among Athletes: A Pilot Study, *Journal of Medical Technology and Physical Therapy*, Vol. 26, No. 2, Pp. 197-204.
- [6] Natsinee Sansuk (2017), Comparison of Skin Appearance with Appropriate Time in Self Reflexology Area with Thai Traditional Medicine in Geriatrics, Thailand, *Proceedings of International Business Economic Tourism Sciences Technology Humanities Social Sciences and Education Research Conference London, United Kingdom*, Pp. 471-475.
- [7] Nishara Ruangdarakanon, Chakriya Theiranaet, Raviwan Rungphiwan, Thipawan Hasakunachai and Nittaya Kochapadee (2008). **Development and child behavior Textbook**. Bangkok: *Holistic publishing*.
- [8] Adisorn Pukanat, editor. (2010). Thai Massage Training Manual, Edition 5. Bangkok: *Three charentpanish (Thailand) Limited*, Thailand.
- [9] Geralyn Ochs. (2013). Study Guide for Fundamentals of Nursing, Eighth Edition. United States of America: Mosby, an imprint of Elsevier Inc.
- [10] Sin Panpinij (2009), "Research Techniques in Science", Bangkok: Vitayapat, Thailand.