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An Impact of Vigorous Petrissage Massage and Tapotement Massage Manipulation Techniques on Flexibility among College Men Hockey Players

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Abstract

The purpose of the study was to find out the impact of Vigorous Petrissage Massage and Tapotement Massage Manipulation Techniques on Flexibility among College Men Hockey Players. For this purpose Forty five (N=45) men Hockey players studying various Colleges around Annamalainagar in Tamilnadu were selected as subjects during the academic year 2014-2015. They were randomly divided into three groups of fifteen each, Group-I underwent Vigorous Petrissage Massage, Group-II underwent Tapotement massage and Group-III acted as Control. The massage manipulation technique was given for twelve weeks duration. Among various flexibility technique only hip flexibility was selected as a dependent variable, and it was assessed through sit and reach test. The data obtained from the experimental groups and control groups before and after the experimental period were statistically analyzed with Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post test means was found to be significant, the Scheffe's test was applied as post-hoc test to determine the paired mean differences. The level of confidence was fixed at .05 level for all the cases. Hip Flexibility showed significant difference among the groups, further the results suggested that Vigorous petrissage and Tapotement forms of massage were increase hip flexibility.

Keywords: Massage, Petrissage, Tapotement, Hip Flexibility.

Introduction

Massage is the manipulating of superficial and deeper layers of muscle and connective tissue using various techniques, to enhance function, aid in the healing process, decrease muscle reflex activity, inhibits motor-neuron excitability and promote relaxation and well-being *(Weerapong et al, 2005).* Petrissage massage movements with applied pressure which are deep and compress the underlying muscles. Kneading, wringing, skin rolling and pick-up-and-squeeze are the petrissage movements. They are all performed with the padded palmar surface of the hand, the surface of the finger and also the thumbs (Symons, 1904).

Tapotement is a specific technique used in Swedish massage. It is a rhythmic percussion, most frequently administered with the edge of the hand, a cupped hand or the tips of the fingers. There are five types of tapotement including Beating (closed fist lightly hitting area), Slapping (use of fingers to gently slap), Hacking (use the edge of hand on pinky finger side), Tapping (use just fingertips) and Cupping (make your hand look like a cup and gently tap area). It is primarily used to "wake up" the nervous system and also as a stimulating stroke and can release lymphatic build up in the back and gently tap the shoulder of the client. Tapotement is a more stimulating movement in which the fingers, sides or palms of the hands produce light tapping or gentle slapping movements.

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Methodology

For this purpose forty five (N=45) men Hockey players studying various Colleges around Annamalainagar, Tamilnadu were selected as subjects during the academic year 2014-2015. They were randomly divided into three groups of fifteen each, Group-I underwent Vigorous Petrissage Massage, Group-II underwent Tapotement massage and Group-III acted as Control. The massage manipulation technique was given for twelve weeks duration. Among various flexibility technique only hip flexibility was selected as a dependent variable, and it was assessed through sit and reach test.

Results and Discussion

The data collected from the control group and massage group prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. Scheffe's test was applied as post-hoc test to determine

the paired mean differences. The level of confidence was fixed at .05 level for all the cases.

Table I. Analysis of Covariance for Vigorous Petrissage, Tapotement Massage Groups and Control Group on Hip Flexibility

Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Vigorous Petrissage Group – (I)	Tapotement Group – (II)	Control Group – (III)					
22.54	21.71	17.52	Between With in	219.23 43.11	2 41	109.62 1.05	104.40*

**** Significant at.05 level of confidence***
(Hip flexibility Scores in Centimeters)
***(The table value required for Significance at .05 level with df 2 and 41 is 3.23*)**

Table I shows that the adjusted post test mean value of hip flexibility for Vigorous Petrissage group, Tapotement group and Control group are 22.54, 21.71 and 17.52 respectively. The obtained F-ratio of 104.40 for the adjusted post test mean is more than the table value of 3.23 for df 2 and 41 required for significance at .05 level of confidence. The results of the study indicate that there are significant differences among the adjusted post test means of Vigorous Petrissage group, Tapotement group and Control group on the development of hip flexibility. To determine which of the paired means had a significant difference, Scheffe's test was applied as Post hoc test and the results are presented in Table II.

Table II. The Scheffe's Test for the Differences between the Adjusted Post Test Paired Means on Hip flexibility

Adjusted Post-test means			Mean Difference	Confidence Interval
Vigorous Petrissage Group – (I)	Tapotement Group – (II)	Control Group – (III)		
22.54	21.71		0.83*	0.79
22.54		17.52	5.02*	0.79
	21.71	17.52	4.19*	0.79

**** Significant at.05 level of confidence***

Table II shows that the adjusted post test mean difference on Vigorous Petrissage group and Tapotement group, Vigorous Petrissage group and Control group, Tapotement group and Control group are 0.83, 5.02 and 4.19 respectively. The values are greater than the confidence interval value 0.79, which shows significant differences at .05 level of confidence. It may be concluded from the results of the study that there is a significant difference in Flexibility between the adjusted post test means of Vigorous Petrissage group and Tapotement group, Vigorous Petrissage group and Control group, Tapotement group and Control group. However, the improvement in hip flexibility was significantly higher for Vigorous Petrissage than Tapotement group and Control group. It may be concluded that the Vigorous Petrissage group is better than Tapotement group and Control group in increasing hip flexibility. The adjusted post test mean values of Vigorous Petrissage group, Tapotement group and Control group on hip flexibility are graphically represented in the Figure I.

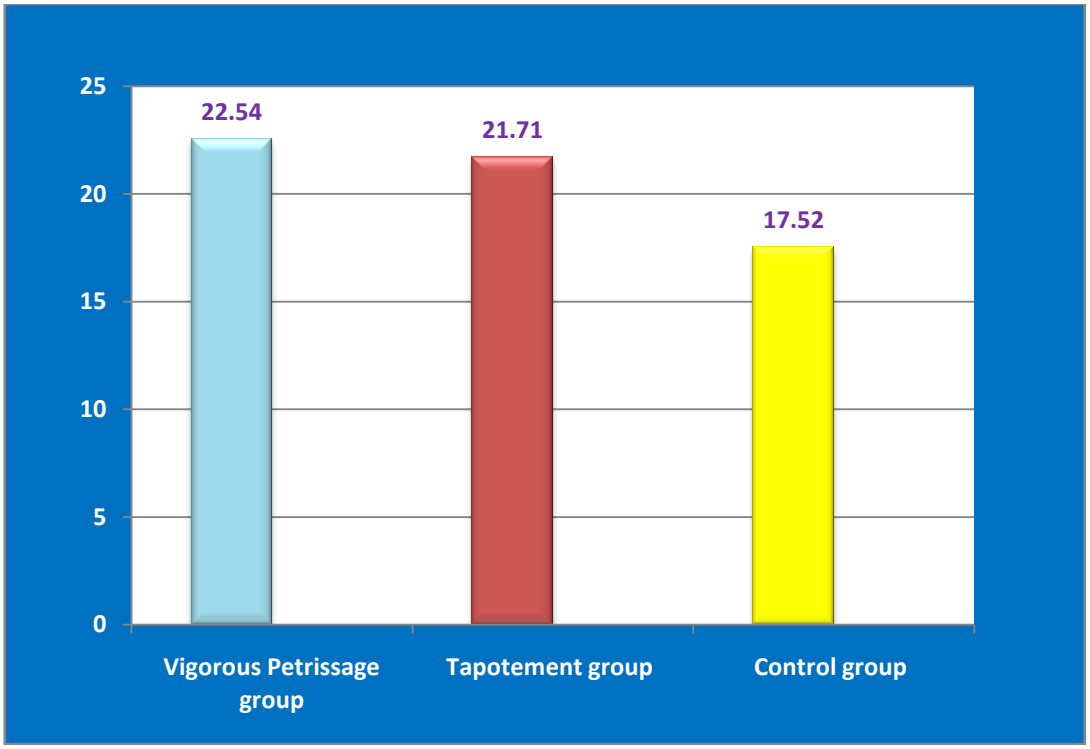

Figure I. The adjusted post test mean values of Vigorous Petrissage group, Tapotement group and Control group on Hip flexibility

Conclusion

From the analysis of the data, the following conclusions were drawn.

1. The Experimental group had registered significant improvement on the selected criterion variables namely hip flexibility.
2. It may be concluded that Vigorous Petrissage group is better than Tapotement Group and Control Group in increasing hip flexibility.

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