Cloistered and Coalesce Upshot of Pilates Exercises and Yogic Practices on Genuvarum Blemish

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KEYWORDS
Cloistered, Coalesce, Upshot, Pilates exercises, Yogic Practices, Genuvarum Blemish

ABSTRACT
To achieve the purpose of this study the investigators selected 24 boys genuvarum blemish students from Karnataka State, India and their age ranged from 14 to 16 years. Training occurred three times per week with at least one day of rest between sessions for twelve weeks. A total of twenty-four boys (N=24) genuvarum blemish students were enlisted and divided into three groups namely Cloistered Pilates exercise training group (n=8), Cloistered yogic practices group (n=8) and Coalesce Pilates exercise training and yogic practices group (n=8). The genuvarum blemish students in the were undergone training sessions of 12 weeks, each of the participants had an X-ray and performed gait 5 times before and after the exercise treatment. Data were collected from the qualified skilled persons and proper precautions were given. Random group design was used in this study. Dependent 't' test was computed to find out the difference between initial and final means. The study found that Pilates exercises and yogic practices were decreased genuvarum blemish for students.

1. Introduction

Pilates was designed by Joseph Pilates, a physical-culturist from Monchengladbach, Germany. His father was a prize-winning gymnast and his mother a naturopath. He studied both Eastern and Western forms of exercise including yoga. During the first half of the 20th century, he developed a system of 15 exercises which were intended to strengthen the human mind and body. Pilates believed that mental and physical health is interrelated.

Joseph Pilates presents his method as the art of controlled movements, which should look and feel like a workout (not a therapy) when properly manifested. If practiced with consistency, Pilates improves flexibility, builds strength and develops control and endurance in the whole human body. It puts emphasis on alignment, breathing, and developing a strong powerhouse, and improving coordination and balance. Pilates' system allows for different exercises to be modified in range of difficulty from beginning to advance or to any other level, and also in terms of the instructor over time as the body conditions and adapts to the exercises (Rael Isacowitz, 2013).

"Yoga" in Hindi or English or any other terminology has been taken from the Sanskrit word yug the word yug in Sanskrit literally stand for the attachment or to join .this the word yoga pores the real meaning the going or the binding of the persons soul to the creator .the soul of an individual is able to combine with its creator by the successfully helps an individual to over some the bodily sports and get the union of the soul done with the almighty .when we minutely study the meaning of the yoga we reach to the conclusion of its message or its goal it's the original write "yug" from which the word yoga has been desired says that yug stands for yoke yoke is the term which is being need to join two bulls in one word an opportunities in such a manner that the bulls one successfully able to plough the field similarly the yoga too joins two different spirits of body and soul together as to find the real wise a true meaning of the life (Ganguly and Gharote1988).

Yoga is an eternal pragmatic science which has cultivated beyond millions of years, mingling with physical, mental, moral and spiritual human beings or mankind in totality. In present time, man is always thinking of materialistic philosophy of power, prosperity and pleasure. Where, he is trapped in a never-ending mad run of fulfilling his unlimited desire and wants. It had been always believed and presumed by the humanity if one had to have the complete comfort of the mind and the body, one must fall into the lap of different yogic practices. Yoga is a divine art of living, living with peace and harmony within. It not only brings the physical wellbeing and mental happiness but also destroys the hindrance of emotions as well as instability and distraction of the practitioner(Kulkarni,1997).

Bow legs 'Bow legs' is also a postural deformity. Approximately, it is opposite to knock knees position. If there is wide gap between the knees when standing with feet together, the individual has bow legs or gene varum. In this deformity, the knees are widely apart. There remains a wide gap between knees when a bow-legged person keeps his feet together. This deformity can be observed easily, when an individual walks or runs (Dadban Minoo 2013).

2. Methodology

2.1. Participants

Boy's participants aged between 14 to16 years, who had an x-ray verified genu varum diagnosis were recruited for this study. To participate each participant had to sign consent form after a verbal explanation and reading of the consent form. A total of 24 participants were recruited and randomly assigned to three groups namely Cloistered Pilates exercise training group (n=8), Cloistered yogic practices group (n=8) and Coalesce Pilates exercise training and yogic practices group (n=8).

2.2. Exercise Program

For twelve weeks, the Pilates program was done three times a week with at least one day off in between. Warming-up and cooling-down exercises were provided for ten minutes before to and following the major core workouts. Pilates exercises were performed in accordance with Okhee Song et al., (2021) recommendations. Double knee circles, hundred preparations, hundred, roll ups, rolling like ball, single leg stretches, sing leg circles, crisscrosses, seals, double leg stretches, spine stretch forward, spine side stretches, side leg kicks, side leg lifts, side leg circles (I & II), side leg banana, swimming, swan, single leg kicks, breathing and push-ups.

The following yogas were performed during the training period Adho Mukha Svanasana, Anantasana, Halasana, Hanumansanana, Janusirsasana, Jathara Parivartanasana, Shalabhasana, Supta Padangusthasana, Upavishta Konasana and Urdhva Mukha Svanasana. Suriya namaskar and meditation techniques were given for ten minutes before and after the major yogic practice.

2.3. Testing procedure

2.3.1. Radiologic Genu Varum Evaluation

To measure and verify the genu varum the participants had their lower body x-rayed. Each of the participants were instructed to stand in anatomical position, however, with their hands across their chest. The weightbearing line was drawn from the center of the hip joint to the center ankle joint. The anatomical axis was drawn from the center of the hip joint to the center of the knee joint. The distance from the center of the knee joint to the point on the weight-bearing line that crosses the knee joint was used to diagnose the genuvarum .

2.4. Statistical Analysis

The dependent sample t-tests were used to evaluate the statistical significances between the groups. A significance level was set to $p< 0.05$.

3. Results

3.1. Right leg x-ray

The results of the dependent 't'-test on the data obtained for right leg x-ray of the subjects in the pre-test and post-test of the Pilates exercise training group and a yogic practices group have been analyzed and presented in table-1.

Table 1: Results of the x-ray data for the right leg (Scores in Millimeters)

Groups	Pre-test Mean	Post-test Mean	Mean Differences	t- value
Pilates Exercises group	13.38 ±1.19	12.00±0.76	1.38	2.76*
Yogic practices group	13.25±1.29	11.13±1.13	2.13	3.52*
Coalesce of Pilates Exercises and yogic practices group	13.00±1.31	9.50±0.53	3.50	7.00*

**** Significant at 0.05 level.***
The table value required for 0.05 level of significance with df 23 is 1.71.

The table -1 shows the pre-x-ray data values of right leg for Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group are 13.38 ±1.19, 13.25±1.29 &13.00±1.31 respectively. The post x-ray data mean is 12.00±0.76, 11.13±1.13 & 9.50±0.53respectively. The pre and posttest mean difference is 1.38, 2.13 & 3.50 respectively.

The obtained dependent t-ratio values between the pre and posttest means on right leg of Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group are 2.76, 3.52 & 7.00 respectively. The table value required for significant difference with df 7 at $p< 0.05$ is 1.71. It was concluded that Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group had registered significant decrease in genu varum of right leg.

The mean values of experimental groups and control group on genu varum of right leg are graphically represented in the Fig.1.

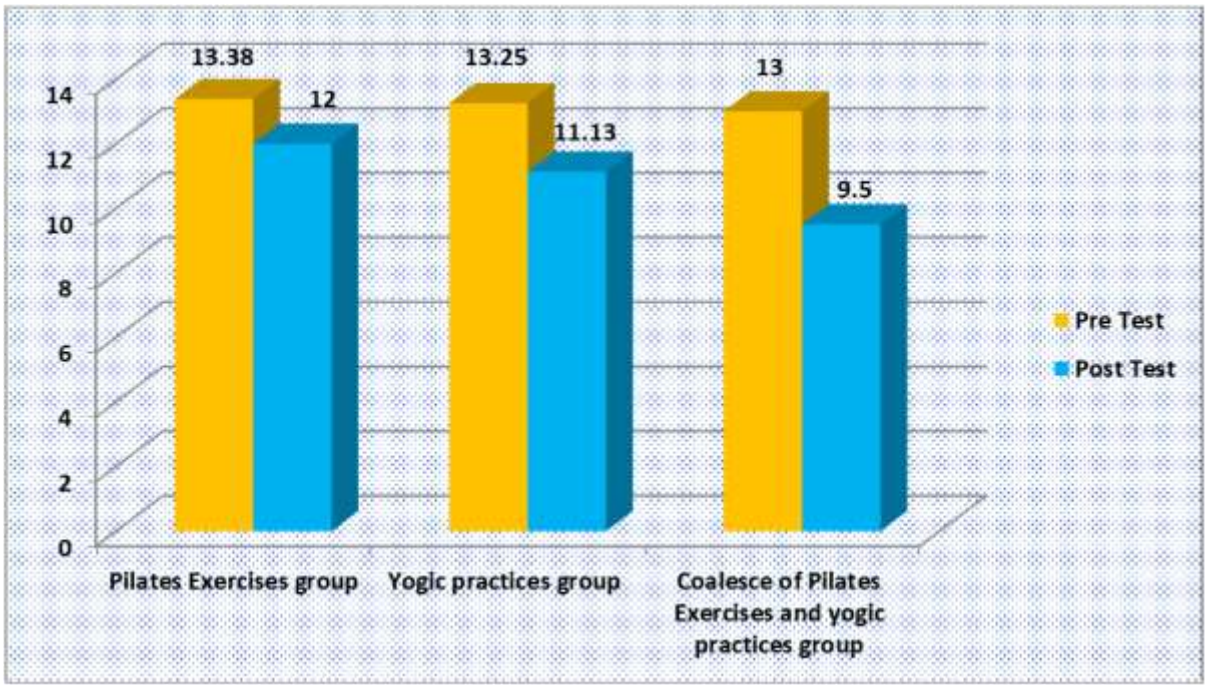

Fig.1 Bar Diagram showing the pre and posttest x-ray data mean values of experimental groups on genu varum of right leg (Scores in Millimeters)

3.2. Left leg x-ray

The results of the dependent 't'-test on the data obtained for left leg x-ray of the subjects in the pre-test and post-test of the Pilates exercise training group and a yogic practices group have been analyzed and presented in table-2.

Table 2: Results of the x-ray data for the left leg (Scores in Millimeters)

Groups	Pre-test Mean	Post-test Mean	Mean Differences	t- value
Pilates Exercises group	13.50 ±0.42	11.88±0.30	1.63	3.15*
Yogic practices group	13.00±0.53	11.00±0.42	2.00	2.94*
Coalesce of Pilates Exercises and yogic practices group	13.13±0.48	9.75±0.25	3.38	6.24*

**** Significant at 0.05 level.***
The table value required for 0.05 level of significance with df 23 is 1.71.

The table -2 shows the pre-x-ray data values of left leg for Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group are 13.50 ±0.42, 13.00±0.53 & 13.13±0.48respectively. The post x-ray data mean 11.88±0.30,

11.00±0.42 & 9.75±0.25 respectively. The pre and posttest mean difference is 1.63, 2.00, & 3.38 respectively.

The obtained dependent t-ratio values between the pre and posttest means on left leg of Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group are 3.15, 2.94 & 6.24 respectively. The table value required for significant difference with df 7 at $p< 0.05$ is 1.71. It was concluded that Pilates exercises group, yogic practices group, and coalesce of Pilates exercises and yogic practices group had registered significant decrease in genu varum of left leg.

The mean values of experimental groups and control group on genu varum of left leg are graphically represented in the Fig.2.

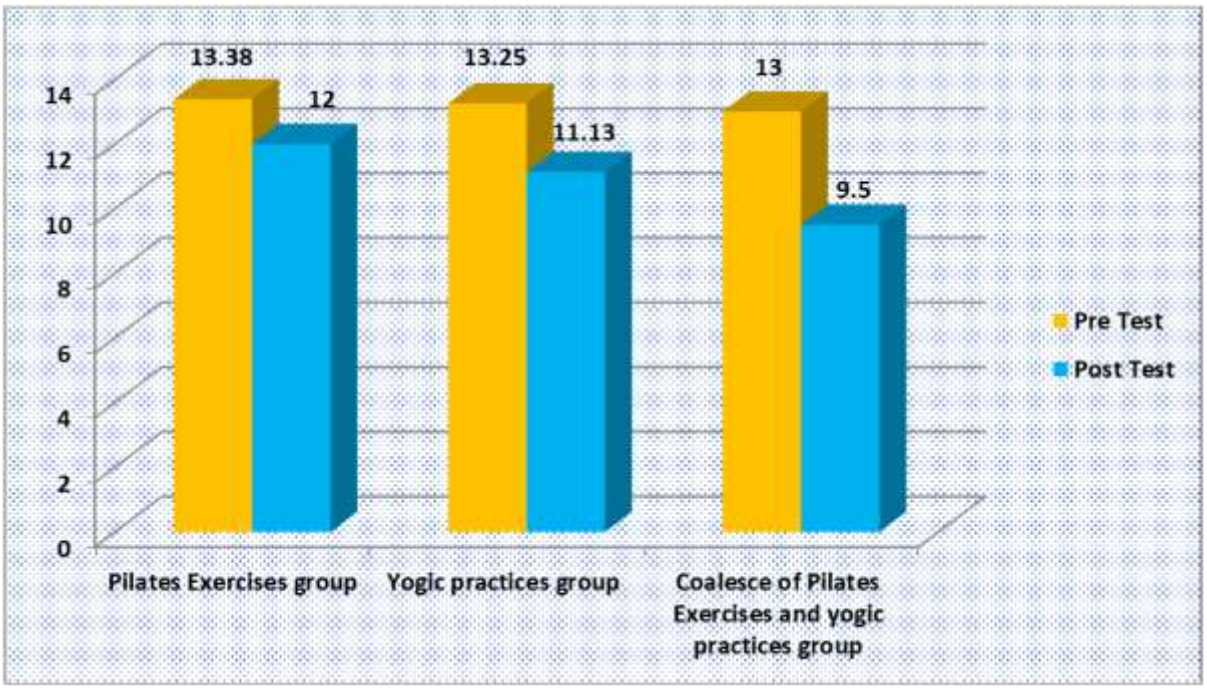

Fig.2 Bar Diagram showing the pre and posttest x-ray data mean values of experimental groups on genu varum of left leg

4. Conclusions

1. The present study reveals that the 12 weeks of Pilates exercises, yogic practices group, and coalesce of Pilates exercises, yogic practices group shown significant differences among the groups with respect to right leg genuvarum.
2. The present study reveals that the 12 weeks of Pilates exercises, yogic practices group, and coalesce of Pilates exercises, yogic practices group shown significant differences among the groups with respect to left leg genuvarum.
3. It is also concluded that the subjects coalesce of Pilates exercises, yogic practices group has shown greater improvement comparable to the subject shallow Pilates exercises, yogic practices group regard to right and left leg genuvarum.

5. References

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