



Effect of Pelvic Correction Exercise with Kinesio Taping Treatment on Trunk Isokinetic Muscle Function and Movement of Female Dancers who have Lumbar hypolordosis

Jun-Youl Cha¹, Sang-Kyun Ryu², Jeong-Min Park² and Kwang-Suk Hyun^{2*}

¹Howon University, ²Chungnam National University, Korea

INTRODUCTION

The purpose of this study was to verify the effects of pelvic correction exercise with kinesio taping treatment on the trunk isokinetic muscle function, flexibility and movement of female dancers with lumbar hypolordosis. It provides basic data on developing various exercise therapies and more effective application methods to improve Activity of Daily Living (ADL) and health-related fitness, and to verify the effectiveness of kinesio taping treatment.

METHODS

This study was conducted on female dancers who visited the B Rehabilitation Medicine Hospital, Y residence, D region, from December of 2019 to February of 2020. The subjects who did not get surgery and medication were selected. Prior to this study, 36 subjects who fully understood the purpose of the experiment and voluntarily participated in the experiment were selected as subjects.

Table 1. Demographic data

	Age (yrs)	Height (cm)	Weight (kg)	BMI (kg/ m ²)	Body Fat (%)
NEG (n=12)	27.16 ±8.94	163.86 ±4.23	48.32 ±3.62	23.03 ±2.06	21.64 ±2.08
PCEG (n=12)	27.16 ±8.94	163.36 ±4.84	48.48 ±3.68	22.12 ±2.32	21.16 ±2.22
TPEG (n=12)	28.32 ±12.67	161.94 ±5.02	50.26 ±4.84	23.04 ±2.22	22.28 ±2.24

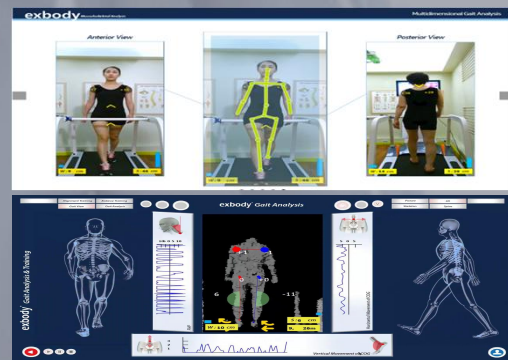
Figure 1. Kinesio taping methods



Table 2. Exercise program

Stage	Exercise Program	Rest			Motion Frequency
		1-4 Week (reps/set)	5-8 Week (reps/set)	9-12 Week (reps/set)	
Warm-up (10 min)	Skipping, Side Steps, Carioce, Back Slaps Prone Position Supine Position Lateral Position leg up 3. hand stand left(right) leg up	10/3	10/3	10/3	RPE 8-10
Work-out (40min)	Elastic Band Training 1. Squirt 2. Lunge 3. Side Lunge 1. One Feet Balance no 2. Two Feet Balance no Balance Ball Training 3. Walking In Balance Ball 4. Run In Balance Ball	10/2	10/3	10/5	RPE 11-13
Cool-down (10min)	Ham String Stretch, Shoulder Stretch Calf Stretch, Adductor Stretch Quadriceps Stretch, It band Stretch	10/3	10/3	10/3	RPE 8-10

Figure 2. Trunk movement ability measurement methods



RESULTS

Figure 3. Trunk Isokinetic torque

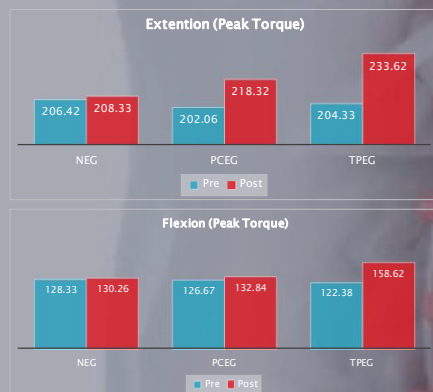


Figure 4. Flexibility

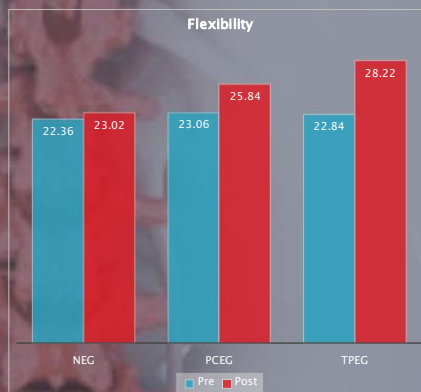
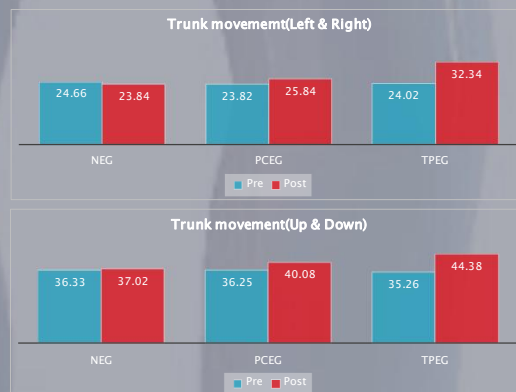


Figure 5. Trunk movement



CONCLUSION

Based on the results of this study, it was verified that pelvic correction exercise with kinesio taping can have a positive effect on Trunk isometric muscle function, flexibility, and movement of female dancers who have hypolordosis.