

Table 5. Psychological Measurements before and after Exercise Training

Variable	Before exercise training mean (SD)	After exercise training mean (SD)	t-value
Body image	121.9 (32.9)	149.7 (30.5)	-2.37*
Self-efficacy	15.1 (11.1)	33.0 (13.3)	-5.22***
Physical symptoms	32.5 (29.4)	29.5 (19.4)	0.45

* $p < 0.05$, *** $p < 0.0001$.

Table 6. Gender Differences in Study Variables

Variable	Gender	Case number	Before exercise training Mean (SD)	After exercise training Mean (SD)	Z-value
Body Image	male	(9)	132.9 (30.8)	150.0 (29.2)	-1.5
	female	(4)	97.3 (25.2)	149.0 (37.9)	-1.46
Self-Efficacy	male	(9)	16.8 (11.1)	36.1 (12.0)	-2.7**
	female	(4)	11.3 (11.8)	26.0 (14.9)	-1.29
Physical Symptoms	male	(9)	20.6 (11.8)	25.3 (20.7)	-0.66
	female	(4)	59.5 (41.0)	38.8 (14.2)	-0.73
Estimated VO _{2max}	male	(9)	5.7 (2.2)	8.8 (1.9)	-2.7**
	female	(4)	4.6 (1.5)	6.6 (1.0)	-1.83
DASI	male	(9)	34.9 (14.1)	44.7 (13.9)	-1.90
	female	(4)	31.5 (10.0)	36.5 (7.5)	-0.73
FEV1	male	(9)	2.8 (0.8)	2.7 (0.8)	-0.415
	female	(4)	1.38 (0.8)	1.1 (0.7)	0.000
FVC	male	(9)	3.2 (1.2)	3.1 (0.9)	-0.059
	female	(4)	1.5 (0.6)	1.7 (0.3)	-0.73
FEV1/FVC%	male	(9)	92.0 (33.3)	94.1 (29.4)	-0.56
	female	(4)	86.3 (42.5)	63.7 (29.8)	-0.73
HR resting	male	(9)	101.3 (13.9)	96.3 (9.9)	-0.508
	female	(4)	95.3 (12.8)	91.0 (16.0)	-1.46
SBP	male	(9)	132.7 (15.4)	120.0 (10.5)	-2.49*
	female	(4)	119.5 (20.2)	118.5 (9.8)	0

DASI = Duke Activity Status Index.

* $p < 0.05$, ** $p < 0.01$.

mated VO_{2max}, and ability to perform daily activities improved after 10 weeks of exercise training for both genders, but significant changes were only observed in males. Similarly, a significant decrease in resting systolic blood pressure was also only observed in males.

Table 7 shows the impact of the period after OHT on physiological and psychological adaptations after exercise training. It was found that body image and resting SBP significantly improved after exercise training in subjects who had undergone heart transplantation over 1 year. On the contrary, significant changes in exercise self-efficacy and FEV1/FVC% were only observed in subjects who had undergone heart transplantation less than 1 year previously. Significant increases in estimated VO_{2max} were found in

both groups.

DISCUSSION

Physiological Adaptations after Exercise Training

Results of the current study show that the mean estimated VO_{2max} was 5.4 METs for all subjects before exercise training. This value is similar to the 5.9 METs of Osada,¹¹ but slightly higher than the 4.7 METs of Mandak.¹⁰ Since 5 METs is considered a basic functional level to independently perform daily activities, it can be concluded that it is possible for patients with OHT to perform daily activities with no assistance. To understand if different intervals after heart transplanta-