Results

Table (1): **Age and sex distribution of the studied group**.

sex / age	Male	Female	Total
15-	60	16	76
17-19	27	9	36
Total	87	25	112

Figure (1): Age Distribution of the studied group.

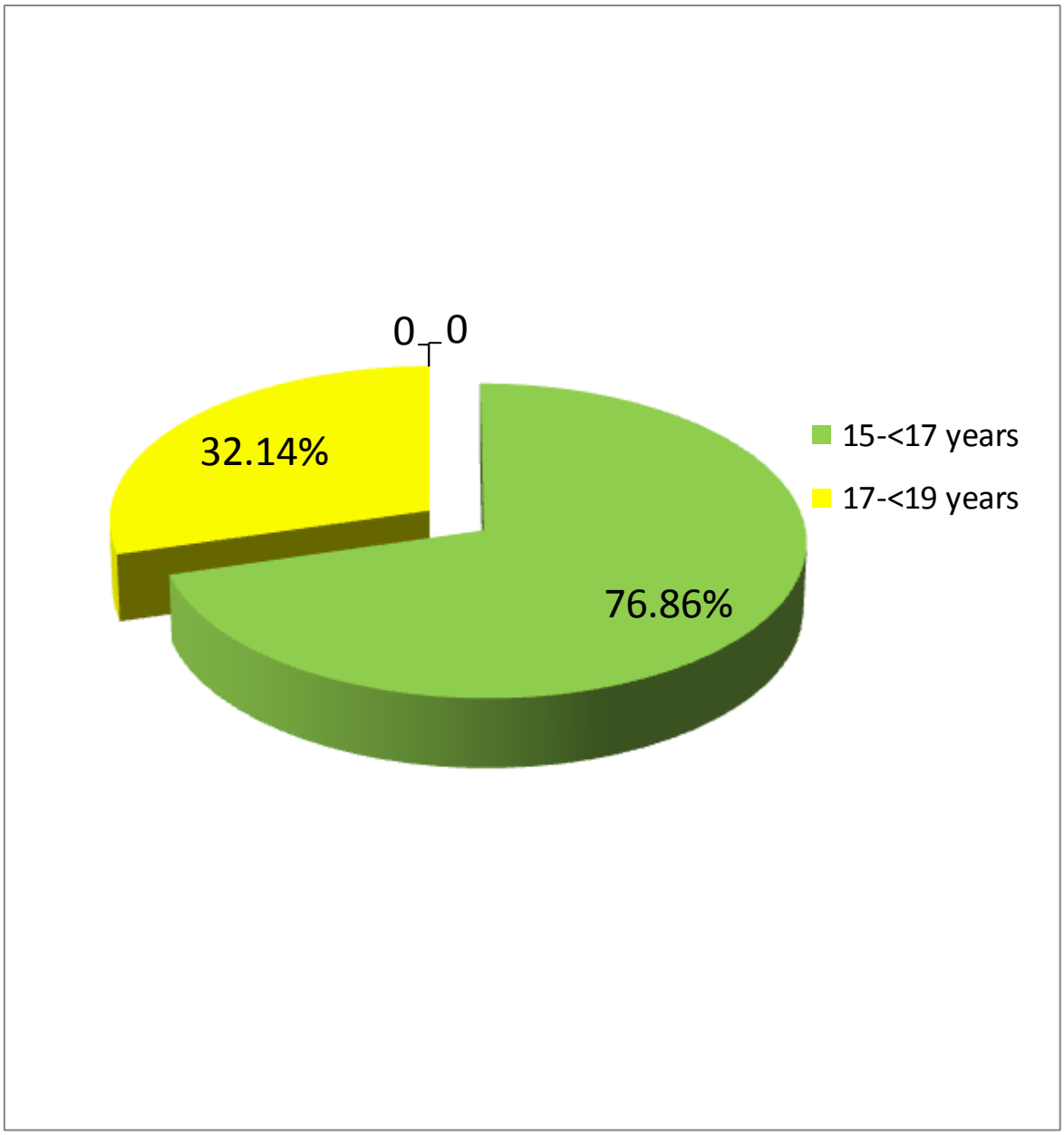
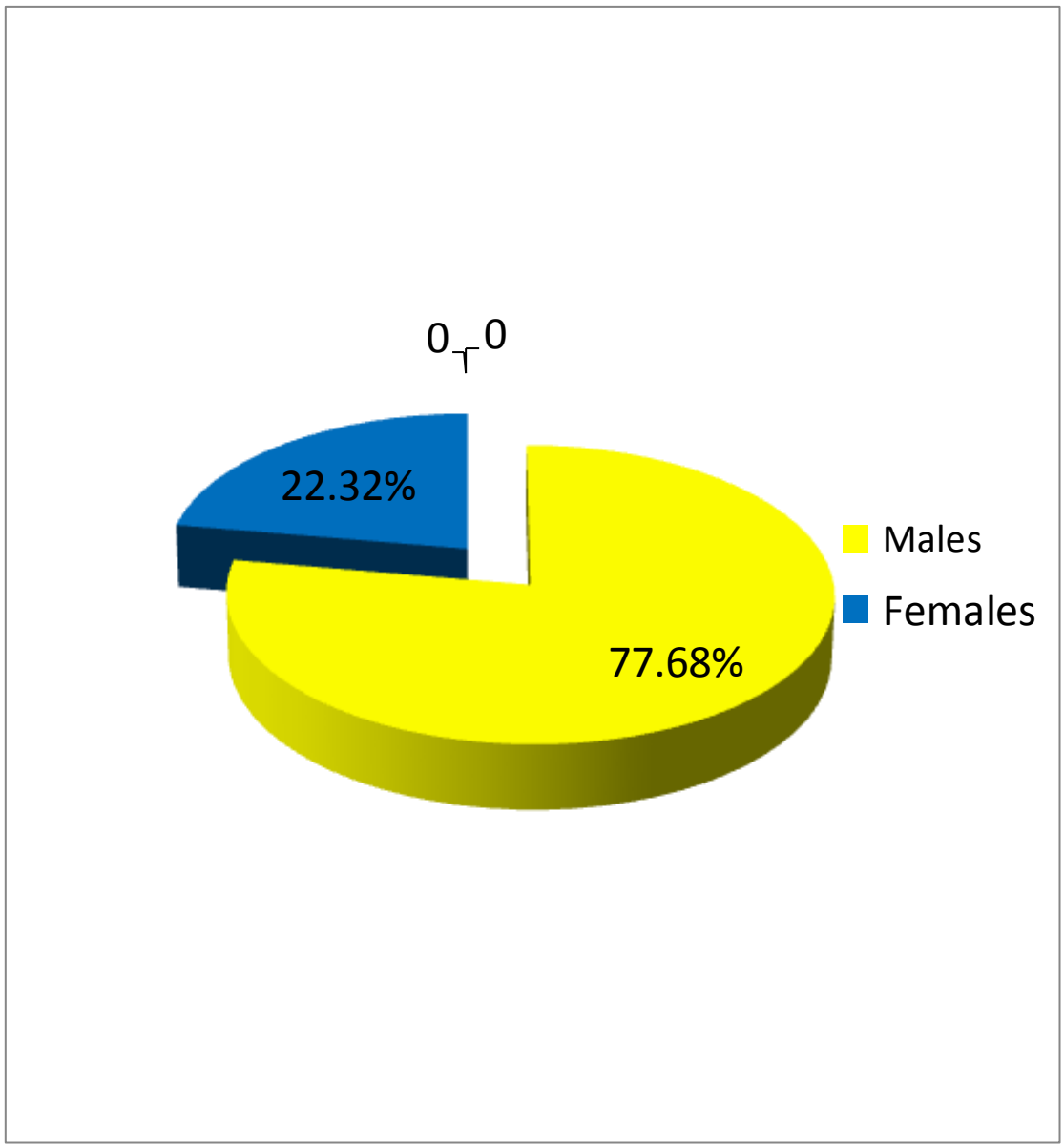


Figure (2): Sex Distribution of the studied group.



(Table 2): Anthropometric measurement of the studied group.

age group / Anthropometric measures	15- No = 76		17 - ≤ 19 No =36		t-test	P value
	$\bar{X}$ ± SD		$\bar{X}$ ± SD			
Body weight (Kgm)	57.12	8.09	58.22	10.11	0.62	>0.05
Height (Cm)	175.79	2.96	177.35	3.91	2.34*	<0.05
Body mass index	20.12	2.29	22.98	2.02	6.40*	<0.05

*Statistically significant difference.

There is a significant difference $p<0.05$ between the two age groups regarding both height and body mass index.

The older group has higher mean height and body mass index.

Table (3): The distribution of age, body weight, height, and body mass index according to sex.

Sex / Anthropometric measures	Males No = 87		Females No = 25		t-test	P value
	$\bar{X}$ ± SD		$\bar{X}$ ± SD			
Age	17.89	2.17	17.29	2.48	1.18	>0.05
Body weight (Kgm)	58.33	7.61	57.92	6.94	0.24	>0.05
Height (Cm)	178.67	3.98	176.66	2.28	2.41*	<0.05
Body mass index	22.92	2.55	20.97	2.58	3.36*	<0.05

*Statistical significant difference.

There is a significant difference p <0.05 between males and females regarding both body mass index and height.

Males are taller and have higher body mass index than females.

Table (4): The distribution of the mean values of heart rate among the studied group.

Heart rate values	NO =112	
	$\overline{X}$ ± SD	
Resting heart rate (b/min)	65	4.14
Maximum heart rate (b/m)	165	7.37
Recovery heart rate (b/m)	82	5.49

Table (5): The distribution of heart rate values among the studied group according to their age.

age groups / heart rate values	15- No = 76	17 - ≤ 19 No =36	t-test	P value
	$\bar{X}$ ± SD	$\bar{X}$ ± SD		
Resting heart rate (b/min)	65 3.93	65 3.89	0.26	>0.05
Maximum heart rate (b/m)	165 7.01	165 8.99	0.46	>0.05
Recovery heart rate (b/m)	83 5.34	82 5.75	0.19	>0.05

There is no significant difference p >0.05 between the two age groups in heart rate values.

Table (6): The distribution of heart rate values among the studied group according to their sex.

sex / heart rate values	Males No = 87	Females No = 25	t-test	P value
	$\bar{X}$ ± SD	$\bar{X}$ ± SD		
Resting heart rate (b/min)	63 3.13	69 4.87	8.24*	<0.05
Maximum heart rate (b/m)	163 6.15	166 8.23	1.80	>0.05
Recovery heart rate (b/m)	83 5.33	85 6.70	1.82	>0.05

*Statistical significant difference.

The table shows that there is a significant difference $p< 0.05$ between males and females in resting heart rates.

Females have higher resting heart rates than males' rates.

Table (7): The distribution of oxygen consumption values among the studied group.

oxygen consumption values	NO =112	
	$\bar{X}$ ± SD	
VO_2 rest (ml/kg/min)	25.33	6.99
VO_2 max (ml/kg/min)	49.58	9.44
VO_2 recovery (ml/kg/min)	33.29	7.09
Anaerobic threshold (ml/kg/min)	41.45	3.08
Time for anaerobic threshold (minutes)	20.34	2.78

Table (8): The distribution of oxygen consumption values among the studied according to their age.

Age groups / oxygen consumption values	15- No = 76	17 - ≤ 19 No = 36	t-test	P value
	$\overline{X}$ ± SD	$\overline{X}$ ± SD		
VO_2 rest (ml/kg/min)	25.33 6.99	25.78 6.89	0.32	>0.05
VO_2 max (ml/kg/min)	49.63 9.23	49.55 9.11	0.04	>0.05
VO_2 recovery (ml/kg/min)	33.29 7.09	32.99 8.11	0.20	>0.05
Anaerobic threshold (ml/kg/min)	40.67 3.52	41.31 3.43	0.91	>0.05
Time for anaerobic threshold (minutes)	20.22 2.59	19.99 2.94	0.42	>0.05

The table shows no significant difference p > 0.05 between 2 age groups in oxygen consumption values.

Table (9): The distribution of oxygen consumption values among the studied group according to their sex.

Sex / oxygen consumption values	Males No = 87 $\bar{X} \pm SD$		Females No = 25 $\bar{X} \pm SD$		t-test	P value
VO_2 rest (ml/kg/min)	25.01	6.99	25.12	6.09	0.07	>0.05
VO_2 max (ml/kg/min)	49.88	8.91	49.12	9.32	0.37	>0.05
VO_2 recovery (ml/kg/min)	33.24	7.09	33.56	8.22	0.19	>0.05
Anaerobic threshold (ml/kg/min)	41.38	3.52	41.09	3.11	0.37	>0.05
Time for anaerobic threshold (minutes)	20.13	2.75	20.49	2.56	0.59	>0.05

The table shows no significant difference $p > 0.05$ between males and females in oxygen consumption values.

Table (10): The distribution of pulmonary ventilatory functions among the studied group.

pulmonary ventilatory functions	NO =112
	$\bar{X} \pm SD$
VC (liter)	4.45 0.34
FVC (liter)	4.69 0.89
FEV_1 (liter)	4.88 0.64
FEV_1/FVC (%)	87.15 2.43
PEFR (liter/min)	489.99 101.36
MEF_{25-75} (liter/sec)	3.78 1.44

Table (11): The distribution of pulmonary ventilatory functions among the studied group according to their age.

Age groups / pulmonary ventilator functions	15- No = 76		17 - ≤ 19 No = 36		t-test	P value
	$\bar{X}$ ± SD		$\bar{X}$ ± SD			
VC (liter)	4.17	0.33	4.23	0.29	0.93	>0.05
FVC (liter)	4.12	0.30	3.99	0.31	2.12*	<0.05
FEV_1 (liter)	3.99	0.76	3.71	0.26	2.15*	<0.05
FEV_1/FVC (%)	88.34	2.01	89.26	2.13	2.22*	<0.05
PEFR (liter/min)	490.12	102.11	488.33	99.99	0.09	>0.05
MEF_{25-75} (liter/sec)	3.78	1.12	3.88	1.01	0.46	>0.05

*Statistical significant difference.

There is a significant difference $p< 0.05$ between two age groups in FVC, FEV1 and FEV1/FVC.

The younger group has higher values than the older group in both FVC, FEV1

But the FEV1/FVC ratio is higher in the older group.

Table (12): The distribution of pulmonary ventilatory functions among the studied group according to sex.

sex / pulmonary ventilatory functions	Males No = 87 $\bar{X} \pm SD$		Females No = 25 $\bar{X} \pm SD$		t-test	P value
VC (liter)	4.65	0.91	4.37	0.88	1.37	>0.05
FVC (liter)	4.29	0.82	4.78	0.11	2.97*	<0.05
FEV_1 (liter)	4.79	0.66	4.99	0.21	1.49	>0.05
FEV_1/FVC (%)	90.11	1.91	89.99	1.67	0.28	>0.05
PEFR (liter/min)	489.39	110.33	491.27	109.36	0.08	>0.05
MEF_{25-75} (liter/sec)	3.95	1.13	3.66	1.46	1.06	>0.05

*Statistical significant difference.

There is a significant difference $p< 0.05$ between males and females in FVC, and females have higher values of FVC than males' values.

Table (13): The distribution of competitive state anxiety levels among the studied group.

Anxiety level	No.	%
low level anxiety	28	25.00
Average level anxiety	39	34.82
High level anxiety	45	40.18
Total	112	100.00

Figure (3): The distribution of anxiety levels among the studied group.

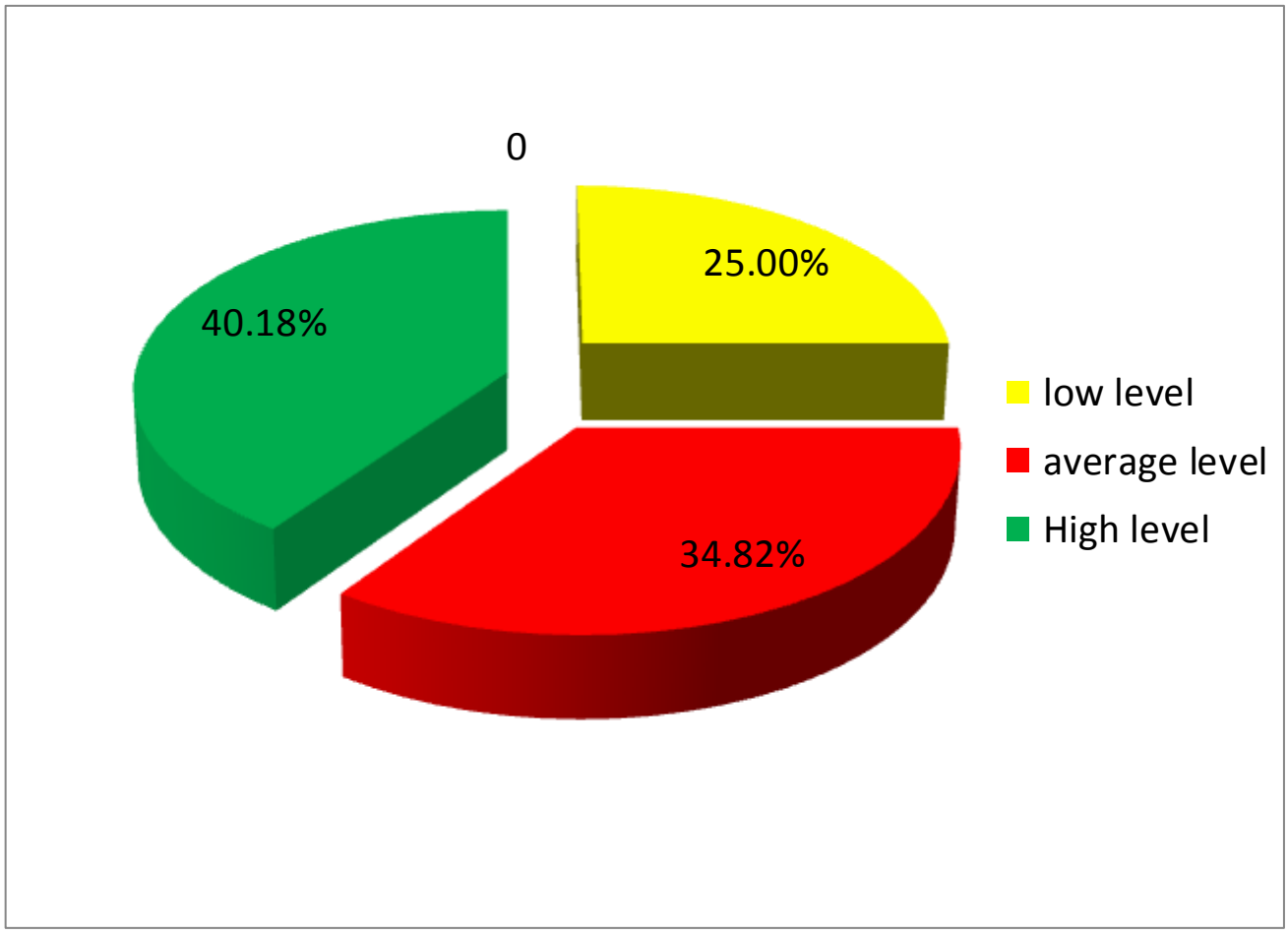


Table (14): The distribution of competitive state anxiety levels among the studied athletes according to their age.

age group / anxiety level	15- No = 76		17 - ≤ 19 No = 36		Total	
	No	%	No	%	No	%
low level anxiety	19	16.96	9	8.03	28	25.00
Average level anxiety	22	19.64	17	15.19	39	34.82
High level anxiety	35	31.25	10	8.93	45	40.18
Total	76	67.86	36	32.14	112	100.00

X^2 test =4.37*

Statistical significant difference.

There is a statistical significant difference $p < 0.05$ between the two age groups.

The younger group is more anxious than the older group.

Figure (4): The distribution of competitive anxiety level among the studied athletes according to their age.

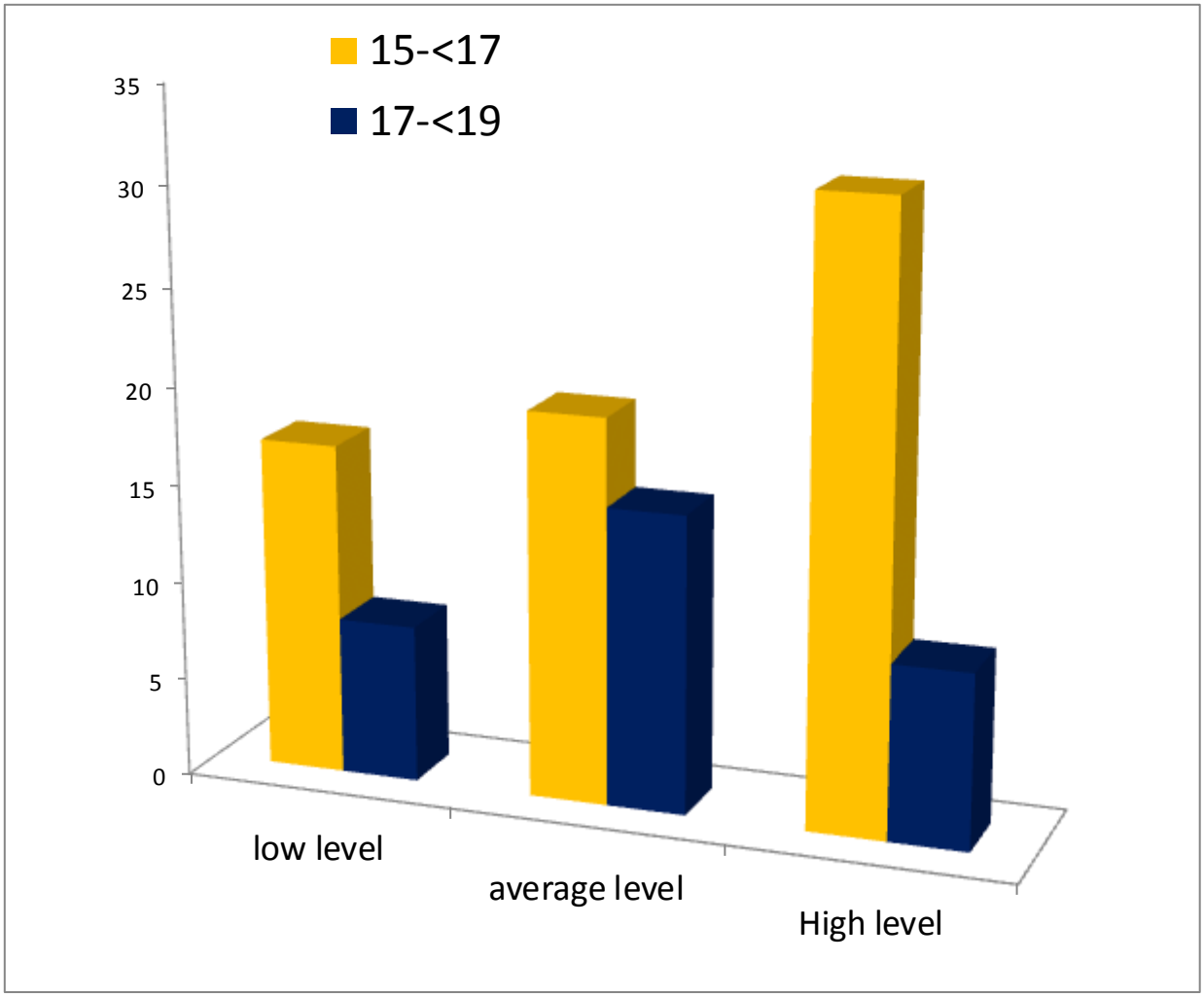
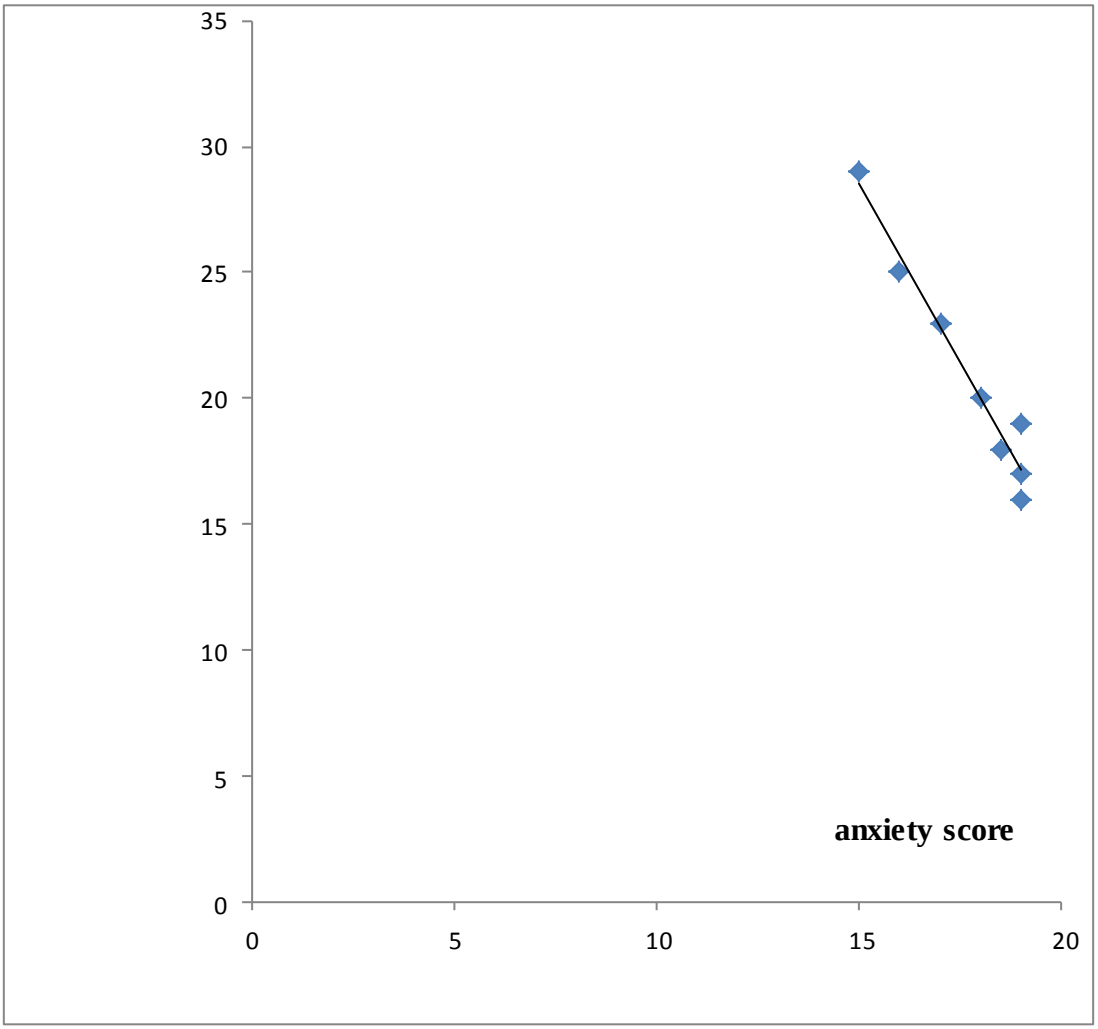


Table (15) The negative Correlation between the score of anxiety test among the studied athletes and their age.

Score of anxiety / Age	**Score of anxiety test (r)**
Age	- 0.034*

* Inverse correlation of Statistical significance.

<u>Figure (5):</u> the correlation between the score of anxiety test among the studied group and their age.



r = - 0.034*

*Statistical significant inverse correlation between age and the score of anxiety test.

Table (16): The distribution of competitive anxiety levels among the studied athletes according to their sex.

sex / anxiety level	Males No = 87		Females No = 25		Total	
	No	%	No	%	No	%
low level anxiety	22	19.64	6	5.36	28	25.00
Average level anxiety	31	27.68	8	7.14	39	34.82
High level anxiety	34	30.36	11	9.82	45	40.18
Total	87	77.68	25	22.32	112	100.00

X^2 test =2.01*

*Statistical significant difference.

There is a significant difference $p < 0.05$ between males and females in all anxiety levels.

Males are more anxious than females.

<u>Figure (6):</u> The distribution of competitive anxiety levels among the studied group according to their sex.

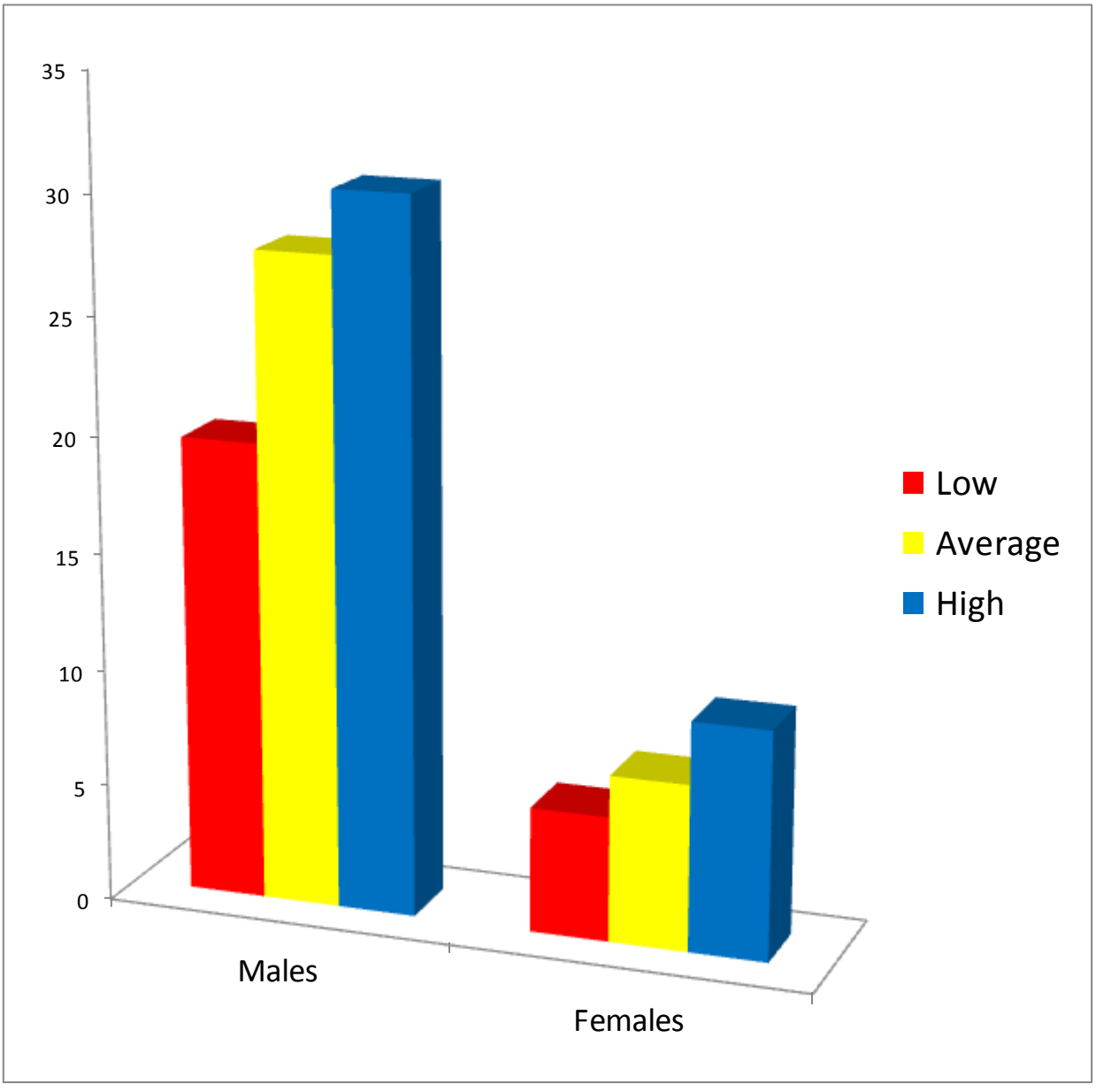


Table (17): The distribution of competitive anxiety levels among the studied athletes according to type of practiced sport.

Anxiety level / Type of sport	Low level anxiety		Average level anxiety		High level anxiety		Total	
	No.	%	No.	%	No.	%	No.	%
Football	6	5.36	20	17.86	26	23.21	52	46.43
Handball	11	9.83	10	8.92	9	8.03	30	26.78
Wrestling	2	1.78	3	2.68	7	6.25	12	10.71
Fencing	3	2.67	3	2.68	3	2.68	9	8.04
Bowling	6	5.36	3	2.68	-	0.00	9	8.04
Total	28	25.00	39	34.82	45	40.18	112	100.00

X^2 test =19.52*

*Statistical significant difference.

There is a significant difference $p < 0.05$ between contact (football, handball, and wrestling) and non-contact sports (fencing and bowling)

Contact sports athletes are more competitively anxious than non-contact sport athletes.

Figure (7): The distribution of competitive anxiety levels among the studied group according to type of practiced sport. (Either contact or non-contact sport)

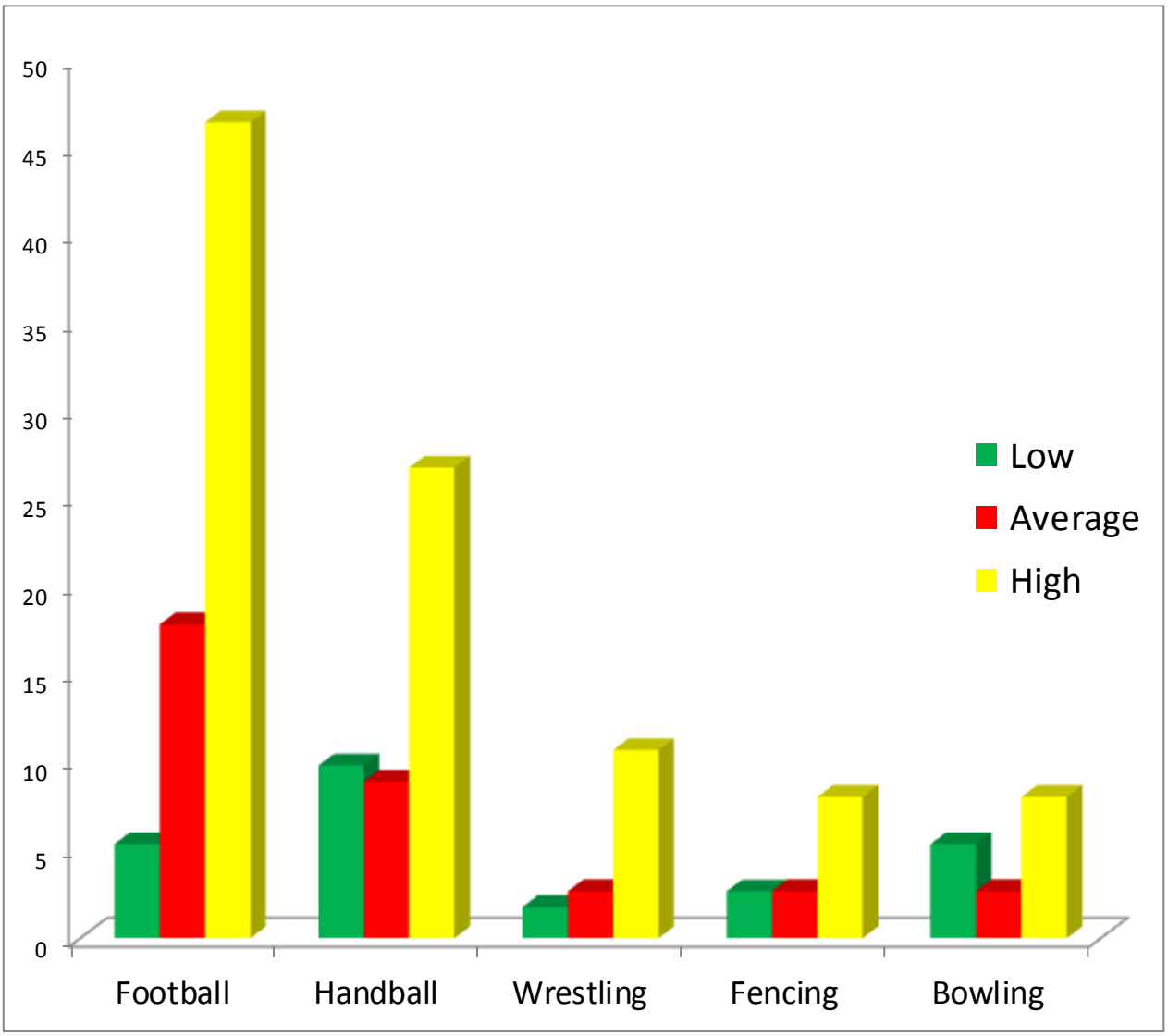


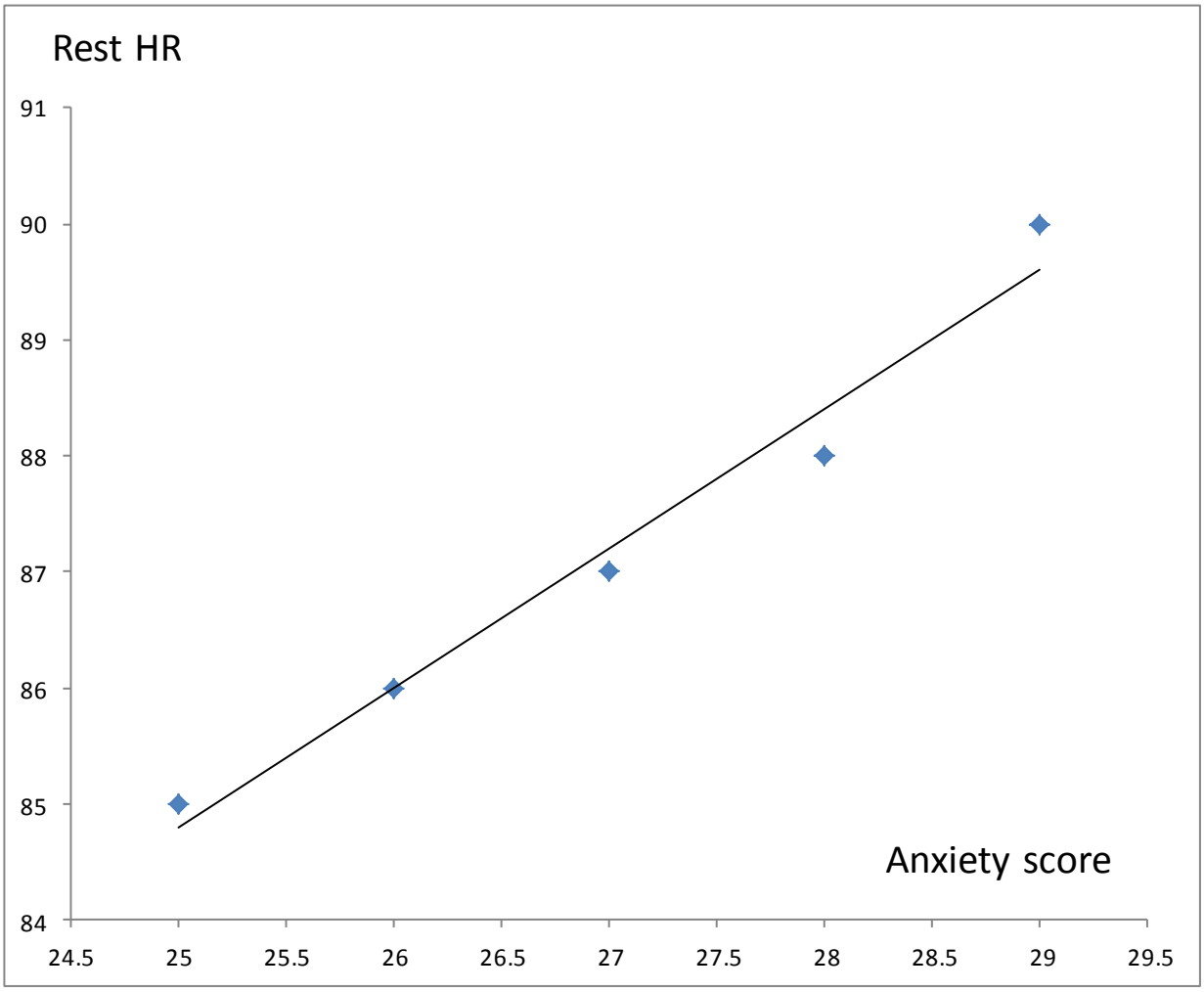
Table (18): The direct correlation between the score of the anxiety test and the heart rate values among the studied group.

Anxiety test score / Heart rate values	Anxiety test score (r)
Resting heart rate (b/min)	+0.036*
Maximum heart rate (b/m)	+0.215*
Recovery heart rate (b/m)	+0.009*

* Statistically significant correlation.

There is direct correlation between competitive anxiety score and heart rate values.

<u>Figure (8):</u> The correlation between the score of the anxiety test and the resting heart rate values among the studied group.



<u>Figure (9):</u> The correlation between the score of the anxiety test and the maximum heart rate values among the studied group.

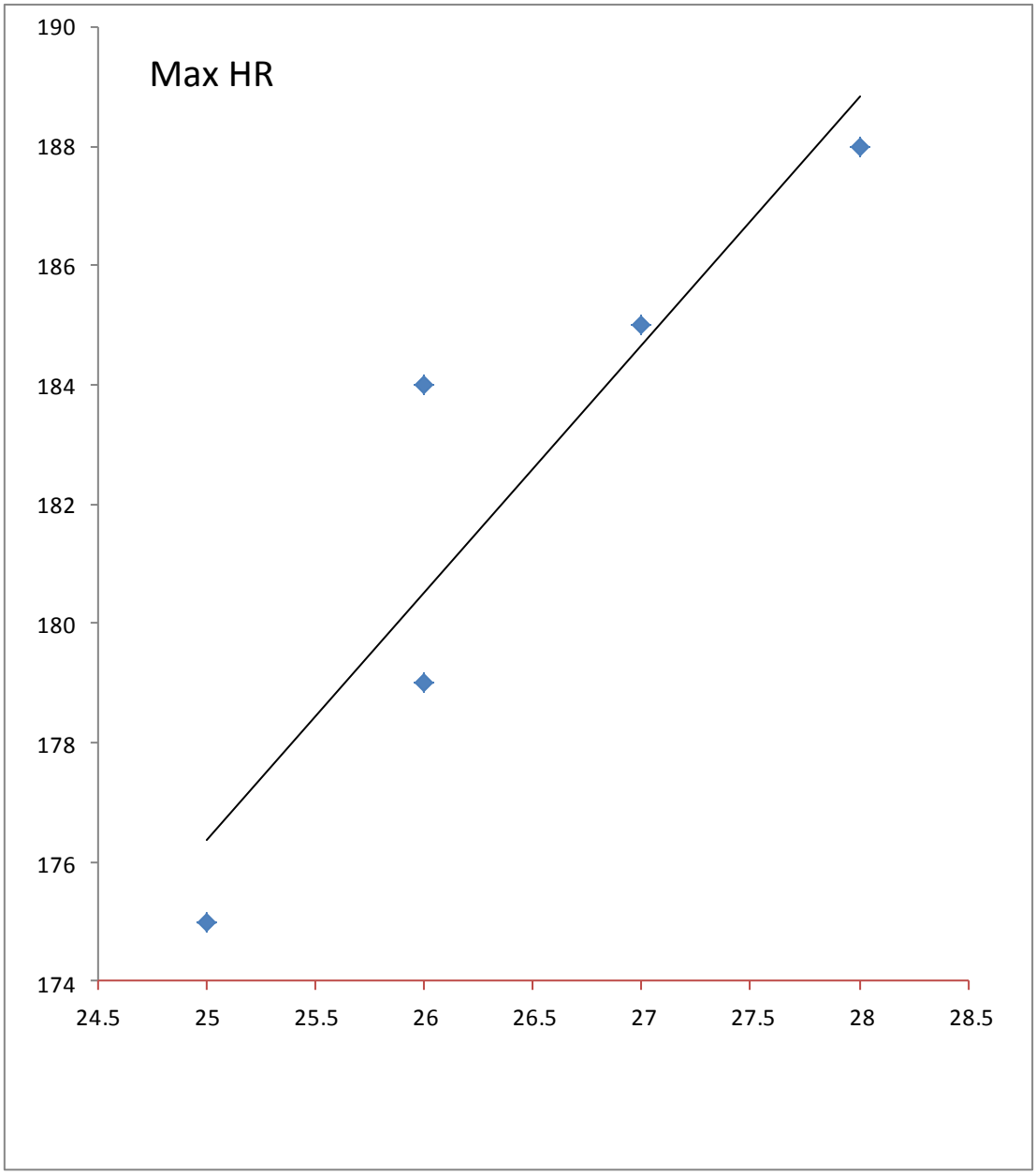


Figure (10): The correlation between the score of the anxiety test and the recovery heart rate values among the studied group.

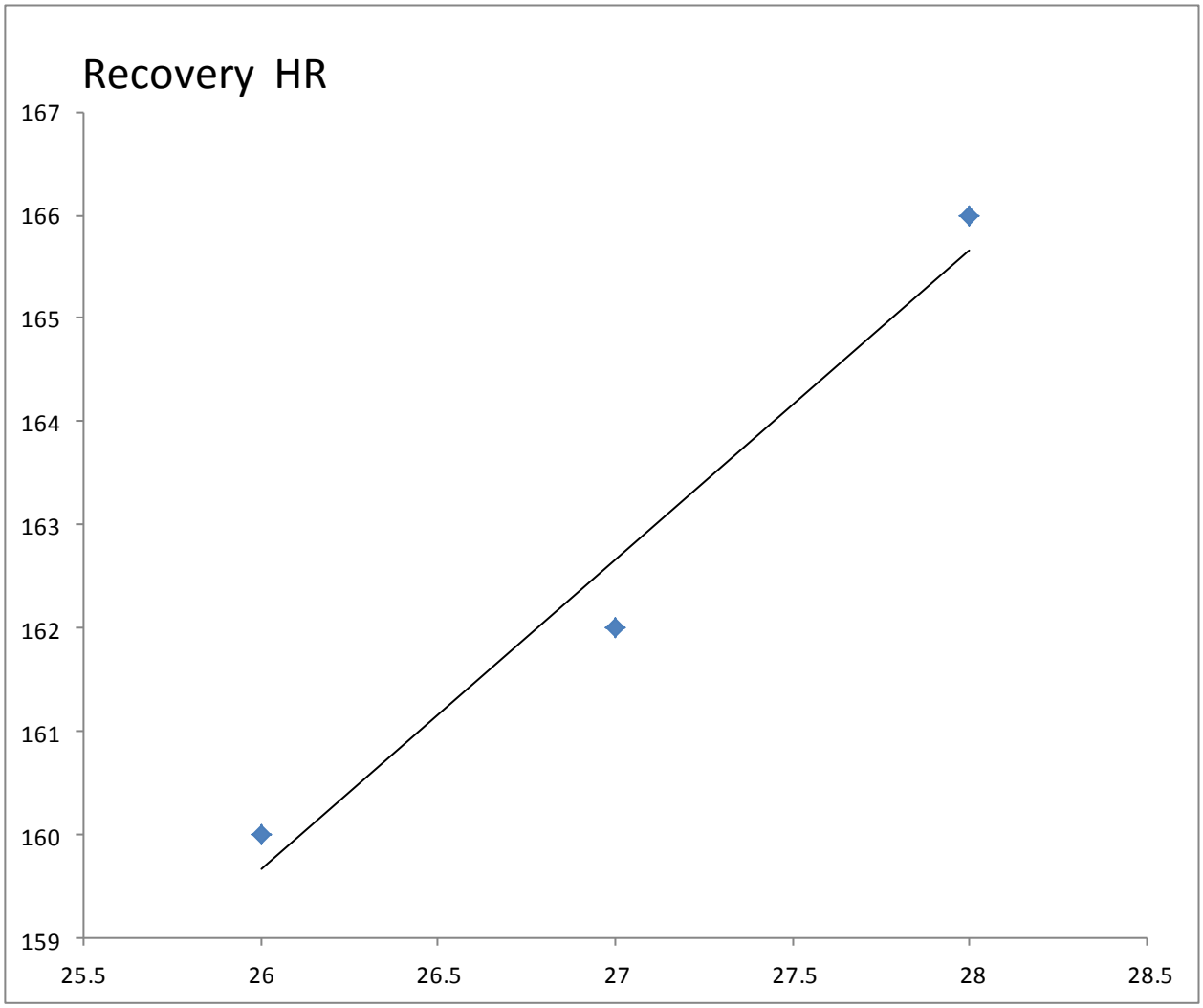


Table (19): The inverse correlation between the score of competitive anxiety test and the oxygen consumption values among the studied group.

Anxiety test score / Oxygen consumption values	Anxiety test score (r)
VO_2 rest (ml/kg/min)	0.937
VO_2 max (ml/kg/min)	- 0.211*
VO_2 recovery (ml/kg/min)	0.964
Anaerobic threshold (ml/kg/min)	- 0.250*
Time for anaerobic threshold (minutes)	- 0.232*

* Statistically significant inverse correlation between competitive anxiety level and VO2 max, anaerobic threshold, and time for anaerobic threshold.

Figure (11): correlation between the score of the competitive anxiety test and the VO_2 max (ml/kg/min) values among the studied group.

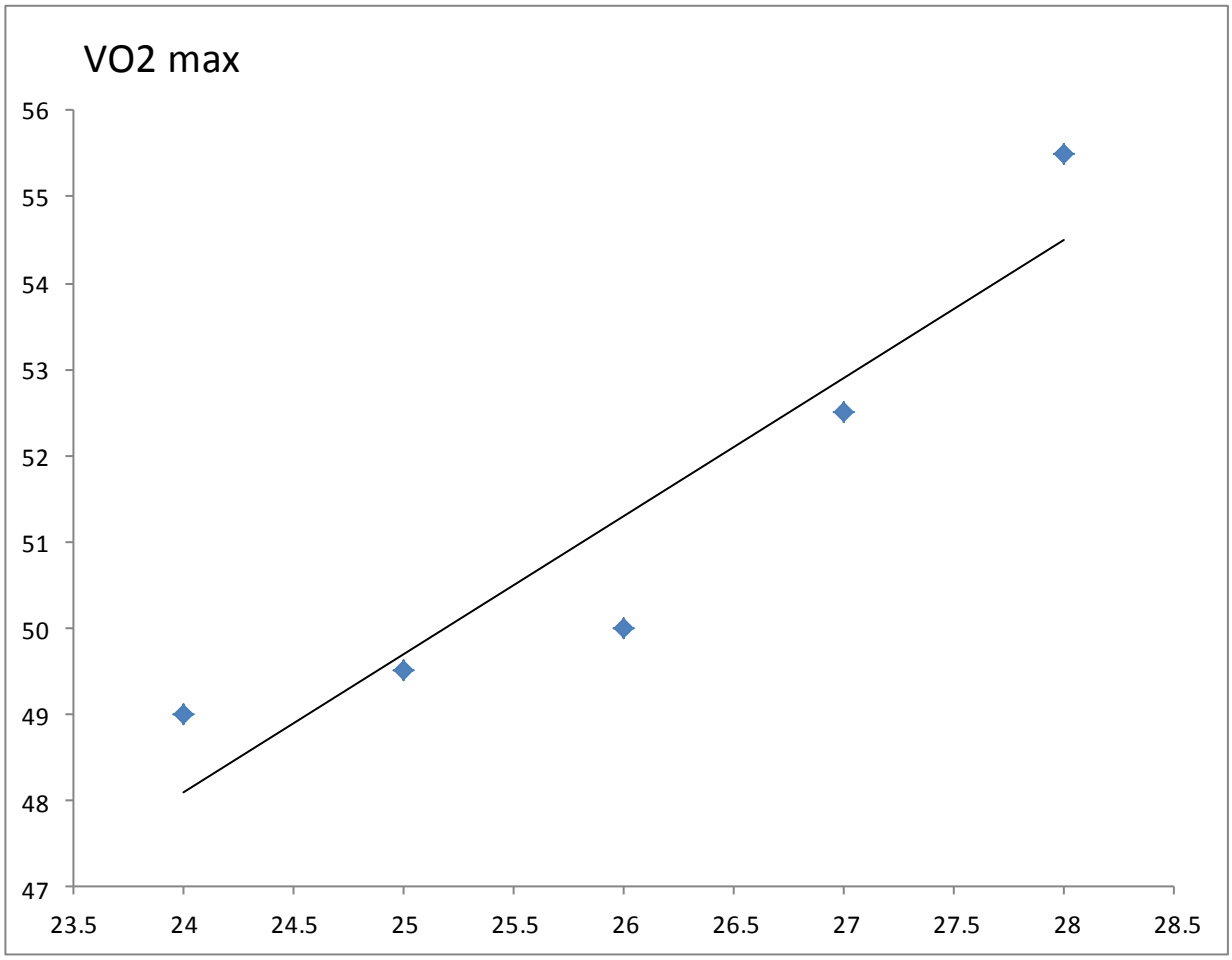


Table (20): The inverse correlation between the score of competitive anxiety test and the pulmonary ventilatory functions among the studied group.

anxiety test score / Ventilatory function	Anxiety test score (r)
VC (liter)	- 0.056*
FVC (liter)	- 0.391*
FEV_1 (liter)	- 0.299*
FEV_1/FVC (%)	0.982
PEFR (liter/min)	- 0.254*
MEF_{25-75} (liter/sec)	- 0.418*

* Statistically significant inverse correlation between VC, FVC, FEV1, PEFR, MEF25-75 competitive anxiety level.