

### Effectiveness Of Anaerobic Exercise On Emotional Intelligence In School Athletes

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#### Abstract

The purpose of the study was to determine the effects of aerobic exercise on emotional intelligence on school athletes. Twenty athletes considered as target population of the study. Angerobic exercise Training was given to athletes of track and field and studying in school considered as anaerobic group. This study involves a cross sectional, comparative pre and post-test of experimental research. Since only one experimental group was taken by the investigator and there was no control group so this study was conducted in a quasi-square experimental design. Purposive sampling method was used, as the researcher selected Track and field students with a specific purpose.Anaerobic exercise programme were design by the investigator and the reliability and validity find out by the researcher on the basis of pilot study. Anaerobic exercise programme was planned for 4 days a week 45 minutes in a day for 12 weeks including 10 minutes warm up period and 05 minutes cooling down. The Anaerobic exercise programme includes sprint running, treadmill activity, jumping, throwing, speed training, weight training.Results of the study show that there were significant effects of anaerobic exercise on Empathy,**self-motivation and Emotional Stability**.

#### Introduction

Anaerobic exercise is exercise intense enough to trigger anaerobic metabolism, it is used by athletes in non-endurance sports to promote power, strength, and speed by body builders to build muscle mass Bernasconip et. al. (1995). Muscles trained using anaerobic exercise develops differently compared to aerobic exercise, leading to greater performance in short duration, high intensity activities, which last from mere seconds up to about 2 minutes.

There are several psychological factors may affect the sports related performance of which emotional intelligence. Mayer and Salovey (1993) define emotional intelligence as the ability to monitor one's own and other's feelings and emotions to discriminate among them, and to use this information to guide one's thinking and action. Emotional intelligence involves the ability to perceive accurately, appraise, and express emotions; the ability to access and / or generate feelings when they facilitate thoughts; the ability to understand emotions and emotional knowledge and intellectual growth. Emotional intelligence enables one to learn to acknowledge and understand feelings in ourselves and in others and that we appropriately respond to them, effectively applying the information and energy of emotions in our daily life and work. Cooper and Sawaf (1997) define emotional intelligences as the ability to sense, understand and effectively apply the power and acumen of emotions as a source of human energy, information, connection and influence.

#### Methods

Twenty athletes considered as target population of the study . Anaerobic exercise Training was given to both groups separately. This study involves a cross sectional, comparative pre and post-test of experimental research. Since only one experimental group was taken by the investigator and there was no control group so this study was conducted in a quasi-square experimental design.

#### **Demographic Information**

The data was collected through respondents in the form of different descriptive tests. The demographic information about, age, height, weight etc. was obtained before seeking training.

#### Sampling Method:

Purposive sampling method was used, as the researcher selected Track and field students with a specific purpose. The investigator define track and field students those who are athletes of track and field and studying in school.

#### Tools of the study

Emotional intelligence measure through the questionnaire prepared byAnkaol Hyde (2007) its provide ten dimensions such as self-awareness, empathy, selfmotivation, emotional stability, managing relations, integrity, self-development, value orientation, commitment and altruistic behavior of twenty eight questions.

#### Anaerobic exercise programme

Anaerobic exercise programme were design by the investigator and the reliability and validity find out by the researcher on the basis of pilot study. Anaerobic exercise programme was planned for 4 days a week 45 minutes in a day for 12 weeks including 10 minutes warm up period and 05 minutes cooling down. The Anaerobic exercise programme includes sprint running, , treadmill activity, jumping, throwing, speed training, weight training.

#### **Statistical Analysis**

The statistical computation of data of the present study is used by using SPSS package in the computer. The result computed also crosschecked by using following statistical variables. Mean, standard deviation, T-test.The level of significance was set-up at 0.05 level .

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#### **Results and discussion**

#### TABLE-1

#### Morphological Characteristics Of Anaerobic Group

Sr. No.		Characteristics	Means Scores	Standard Deviations
1.		Age (Year)	14.23	2.38
2.	~	Weight (Kg)	60.34	5.67
3.		Height (cm)	160.90	7.50
4.		ВМІ	19.46	3.56

Table -1 depicted the morphological characteristics of anaerobic group. The Mean Score (SDs.) age of Anaerobic group was 14.23(2.38) years, mean score (SDs.) weight was 60.34 (5.67) kg., mean score (SDs) height was 160.90 (7.50) cm. and mean score (SDs) BMI was 19.46 (3.56) cm. of Anaerobic group.

#### TABLE -2 Statistical Comparison Of Emotional Intelligence With Respect To Self-Awareness Of Pre And Post-Test Of Anaerobic Group Variable Number **T-Test** Test Mean S.D. Pre Test 20 11.23 2.20 Self-NS Awareness Post Test 20 11.34 2.37 **NS= Not Significant**

 Table-2, Shows Mean scores and SDs of pre and post- test of Emotional

 Intelligence with respect to Self-Awareness of pre and Post-test of Anaerobic group

The mean scores obtained from Table 2, the mean score of Pre-test 11.23 and the post test was 11.34 recoded respectively of Emotional Intelligence with respect to Self-Awareness of Anaerobic group of pre and post-test of anaerobic group. Whereas, the standard deviation of Pre-test was 2.20 and post-test was 2.37 recoded respectively of Emotional Intelligence with respect to Self-Awareness of Anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Self-Awareness of anaerobic group

#### TABLE 3

#### Statistical Comparison Of Emotional Intelligence With Respect To Empathy Of Pre And Post-Test Of Anaerobic Group

	· ··· ································										
Variable	Test	Number	Mean	S.D.	T-Test						
Empathy	Pre Test	20	11.09	2.11	*						
	Post Test	20	11.80	2.17							
	INTE	100		*- 0	in a life a set						

\*= Significant

Table -3 illustrates the statistical comparison of Emotional Intelligence with respect to Empathy of pre and Post-test of anaerobic group.

The mean scores obtained from Table 3, the mean score of Pre-test 11.09 and the post test was 11.80 recoded respectively of Emotional Intelligence with respect to Empathy of anaerobic group of anaerobic group. Whereas, the standard deviation of Pretest was 3.11 and post-test was 2.17 recoded respectively of Emotional Intelligence with respect to Empathy of anaerobic group. The findings of the study Reveals that there was significant effects of anaerobic training on Emotional Intelligence with respect to Empathy of anaerobic group

#### TABLE 4

## Statistical Comparison Of Emotional Intelligence With Respect To Self-Motivation

Of Pre And Post-Test Of Anaerobic Group.										
Variable Test Number Mean S.D.										
Pre Test	20	11.55	1.89	*						
Post Test	20	11.23	1.76							
	Test Pre Test	TestNumberPre Test20	TestNumberMeanPre Test2011.55	TestNumberMeanS.D.Pre Test2011.551.89						

\*= Not Significant

Table -4 illustrates the statistical comparison of Emotional Intelligence with respect to Self-Motivation of pre and Post-test of anaerobic group.

The mean scores obtained from Table 4, the mean score of Pre-test 11.55 and the post test was 11.23 recoded respectively of Emotional Intelligence with respect to Self-Motivation of anaerobic group of pre and post-test of anaerobic group. Whereas, the standard deviation of Pre-test was 1.89 and post-test was 1.76 recoded respectively of Emotional Intelligence with respect to Self-Motivation of aerobic group. The findings of the study Reveals that there was significant effects of anaerobic training on Emotional Intelligence with respect to Self-Motivation of anaerobic group.

#### TABLE 5

#### Statistical Comparison Of Emotional Intelligence With Respect To Emotional Stability Of Pre And Post-Test Of Anaerobic Group

Variable	Test	Number	Mean	S.D.	T-Test
Emotional Stability	Pre Test	20	11.56	2.14	*
Stability	Post Test	20	11.89	2.28	
				*	c <sup>.</sup> .c <sup>.</sup>

\* = Significant

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Table -5 illustrates the statistical comparison of Emotional Intelligence with respect to Emotional Stability of pre and Post-test of Anaerobic group.

The mean scores obtained from Table 5, the mean score of Pre-test 11.56 and the post test was 11.89 recoded respectively of Emotional Intelligence with respect to Emotional Stability of Anaerobic group of pre and post-test of anaerobic group. Whereas, the standard deviation of Pre-test was 2.14 and post-test was 2.28 recoded respectively of Emotional Intelligence with respect to Emotional Stability of Anaerobic group. The findings of the study Reveals that there was significant effects of anaerobic training on Emotional Intelligence with respect to Emotional Stability of anaerobic group.

#### TABLE 6

#### Statistical Comparison Of Emotional Intelligence With Respect To Managing Relations Of Pre-And Post-Test Of Anaerobic Group.

1	Variable	Test	Number	Mean	S.D.	t-ratio
	Managing relations	Pre Test	20	11.56	2.01	NS
		Post Test	20	11.67	2.13	

NS= Not Significant

Table -6 illustrates the statistical comparison of Emotional Intelligence with respect to Managing relations of pre and Post-test of anaerobic group.

The mean scores obtained from Table 6, the mean score of Pre-test 11.56 and the post test was 11.67 recoded respectively of Emotional Intelligence with respect to Managing relations of anaerobic group .Whereas, the standard deviation of Pre-test was 2.01 and post-test was 2.13 recoded respectively of Emotional Intelligence with respect to Managing relations of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Managing relations of anaerobic group

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Statistical Comparison Of Emotional Intelligence With Respect To Integrity Of Pre And Post-Test Of Anaerobic Group

Variable	VariableTestNumberMeanS.D.							
Integrity	Pre Test	20	12.34	1.80	NC			
	Post Test	20	12.45	1.87	NS			
		CONTRACTOR OF THE OWNER OWNER OWNER OF THE OWNER	The second produced by the	nu'	- 6			

Table -7 illustrates the statistical comparison of Emotional Intelligence with respect to Integrity of pre and Post-test of anaerobic group.

The mean scores obtained from Table 7, the mean score of Pre-test 12.34 and the post test was 12.45 recoded respectively of Emotional Intelligence with respect to Integrity of anaerobic group. Whereas, the standard deviation of Pre-test was 1.80 and posttest was 1.87 recoded respectively of Emotional Intelligence with respect to Integrity of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Integrity of anaerobic group.

# TABLE 8 Statistical Comparison Of Emotional Intelligence With Respect To Self - Development Of Pre And Post-Test Of Anaerobic Group

Variable	Test	Number	Mean	S.D.	t-ratio
Self -	Pre Test	20	12.34	2.43	NS
Development	Post Test	20	12.23	2.36	
	27			NS= Not	ignificant

Table -8 illustrates the statistical comparison of Emotional Intelligence with respect to Self - Development of pre and Post-test of anaerobic group.

The mean scores obtained from Table 8, the mean score of Pre-test 12.34 and the post test was 12.23 recoded respectively of Emotional Intelligence with respect to Self - Development of anaerobic group. Whereas, the standard deviation of Pre-test was 2.43 and post-test was 2.36 recoded respectively of Emotional Intelligence with respect to Self - Development of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Self -Development of anaerobic group.

TABLE 9										
Statistical Comparison Of Emotional Intelligence With Respect To Value Orientation Of										
X	Pr	e And Post-	<mark>Test</mark> Of Anaerobic Grou	ıp	0 I					
Variable 💦	Test	Number	Mean	S.D.	t-ratio					
		20	42.20	2.22						
Value	Pre Test	20	12.38	2.23						
Orientation	Post Test	20	12.49	2.29	NS					

NS= Not significant

Table -9 illustrates the statistical comparison of Emotional Intelligence with respect to Value Orientation of pre and Post-test of anaerobic group.

The mean scores obtained from Table 9, the mean score of Pre-test 12.38 and the post test was 12.89 recoded respectively of Emotional Intelligence with respect to Value Orientation of anaerobic group. Whereas, the standard deviation of Pre-test was 2.23 and post-test was 2.29 recoded respectively of Emotional Intelligence with respect to Value Orientation of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Value Orientation of anaerobic group.

#### TABLE 10

Statistical Comparison Of Emotional Intelligence With Respect To Commitment Of Pre And Post-Test Of Anaerobic Group

Variable	Test	Number	Mean	S.D.	t-ratio		
Commitment	Pre Test	20	12.16	2.33	NS		
	Post Test	20	12.24	2.35			
	Interuscio						

Table -10 illustrates the statistical comparison of Emotional Intelligence with respect to Commitment of pre and Post-test of anaerobic group.

The mean scores obtained from Table 10, the mean score of Pre-test 12.16 and the post test was 12.24 recoded respectively of Emotional Intelligence with respect to Commitment of anaerobic group. Whereas, the standard deviation of Pre-test was 2.24 and post-test was 2.28 recoded respectively of Emotional Intelligence with respect to Commitment of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Commitment of anaerobic group.

#### TABLE 11

Statistical Comparison Of Emotional Intelligence With Respect To Altruistic Behavior Of Pre, And Post-Test Of Anaerobic, Group

Variable	Test	Number	Mean	S.D.	t-ratio
Altruistic	Pre Test	20	11.67	2.31	NS
Behavior	Post Test	20	11.79	2.34	
3				NS= Not	significan

ictical comparison of Emotional Intelligence

Table -11 illustrates the statistical comparison of Emotional Intelligence with respect to Altruistic Behaviour of pre and Post-test of anaerobic group.

The mean scores obtained from Table 11, the mean score of Pre-test 11.67 and the post test was 11.79 recoded respectively of Emotional Intelligence with respect to Altruistic Behavior of anaerobic group of pre and post-test of anaerobic group. Whereas, the standard deviation of Pre-test was 2.31 and post-test was 2.34 recoded respectively of Emotional Intelligence with respect to Altruistic Behaviour of anaerobic group. The findings of the study Reveals that there was no significant effects of anaerobic training on Emotional Intelligence with respect to Altruistic Behaviour of anaerobic group.

#### Conclusions

- 1. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Self-Awareness of anaerobic group.
- 2. There was a significant effect of anaerobic training on Emotional Intelligence with respect to Empathy of anaerobic group.

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- 3. There was a significant effect of anaerobic training on Emotional Intelligence with respect to Self-Motivation of anaerobic group.
- 4. There was a significant effect of anaerobic training on Emotional Intelligence with respect to Emotional Stability of anaerobic group.
- 5. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Managing relations of anaerobic group.
- 6. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Integrity of anaerobic group.
- 7. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Self Development of anaerobic group.
- 8. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Value Orientation of anaerobic group.
- 9. There was no significant effect of anaerobic training on Emotional Intelligence with respect to Altruistic Behaviour of anaerobic group.

#### References

- Bar-On, R. (2005). "The Bar-On Model of Emotional-Social Intelligence".in P. Farnandez-Berrocal and N. Extremera (Guest Editors). Special issue on emotional intelligence. *Psichotema*, 17.
- Berggren, F. (2005) "Physical inactivity-why the problem is too important to be taken serious and how lifelong quality education of the whole person may prosper by new international partnerships."The 46th Ichper Anniversary World Congress. 19
- Blix, A.G., Cruise, R.J. Mitchell, B.M. & Blix, G.G. (1994). "Occupational Stress Among University Teachers" *Educational Research*, 36, 2, 157-169.
- Boyd, S. & Wylie, C. (1994). *Workload and Stress in New Zealand Universities*. Wellington: New Zealand Council for Educational Research and the Association of University Staff of New Zealand.
- Ciarrochi, J. Chan, A. &Bajgar, J. (2001)."Measuring Emotional Intelligence in Adolescents". *Personality and Individual Differences*, 28, 539-561.
- Ciarrochi, J. Chan, A. &Caputi, P. (2000). "A Critical Evaluation of the Emotional Intelligence Construct". *Personality and Individual Differences* Vol. 28, pp. 539-561.
- Coladarchi, T. (1992). "Teachers' Sense of Efficacy and Commitment to Teaching". Journal of Experimental Education, 60, 323-337.
- Cooper, C.L. & Cartwright, S. (1994). "Stress Management Interventions in the Workplace: Stress Counseling and Stress Audits". *British Journal of Guidance and Counseling*, 22, 1, 65-73.
- Dubbert PM (2002) "Physical activity and exercise: recent advances and current challenges. Journal of Consulting and clinical psychology." 70:526-536. Dio: 10.1037/0022-0066X.70.3.526.
- Goleman, D. (1995). Emotional Intelligence. New York: Bantam Book.
- Goleman, D. (1998). Working with Emotional Intelligence. New York: Bantam Books.
- Mayer, J.D. &Salovey, P. (1997). "What is Emotional Intelligence?" In P. Salovey& D. Sluyter (Eds.). *Emotional Development and Emotional Intelligence: Implications for Educators* (pp. 3-31) New York: Basic Books.