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## Effect of competition effort on some functional variables of volleyball players

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### Abstract

**Purpose:** To recognizing the effect of competition effort on some functional variables of volleyball players through pre measurement and post measurement in variables under study.

**Methodology:** The experimental method was used of achieve the study objectives. The study sample included (9) players from the youth players volleyball in M.S.M. College of physical education at Aurangabad city.

**Results:** The study showed that there are differences between the Pre and Post measurement for (pulse, systolic pressure, diastolic pressure and respiratory rate) in favor of post measurement that shows effect of competition effort on variables mentioned above. While no there are differences between the Pre and Post measurement for (vital capacity and temperature) thus the hypothesis of the study was achieved.

**Keywords:** Effect, competition effort, functional variables, volleyball players

### Introduction

Training Science and sports physiology are the most important in sports field. So that, the physical effort draws the attention of scientists since last decades when they made study about the how of the performance of body functions and observe the variables especially positives effects from daily practicing of sports (Kazim, G. A., 1999) [3].

In matches, the observation and evaluation of players' performance is a real expression, it shows exerted effort during performance in intensity and size. The exerted effort in matches in a result of the various preparation processes. Whereas, sports competition is really a reflection of the results of training processes which is considered as one of the indicators of the player's level in the competition. (Nadia, A. M. Y. A. and M, M. J., 2011) [8].

The sport training is an exposing process of body parts to perform several of physical lifting that leads of physiology changes. Thus, there is increasing of the body efficiency to face the physiological and structural requirements to the nature of the specific type of sport activities, so that the physiological science of sport training has become a mainstay for all of sport training processes. Due to the experimental studies conducted in this field, the researchers could recognize all of physical training types and its impact on the vital body parts. This outcome is one of the important factors which has contributed to the rise and development of the training level. Which is adopted the science as method and manner to study everything related to physiological variables according to the various exercises (Baha'a Aldeen, I. S., 1989) [1].

In all these types of sport training activities caused in psychological and chemical variables inside the body's cell. This leads to produce the required energy through increasing the operations of metabolism and increasing the activities of Enzymes resulted from regular training based principles. These adaptations suitable and based also on the system's type. The volleyball is one of these events that require work using an anaerobic system. The competition gives a clear conception of the quantity of consumed energy through spending efforts and muscle work. They are accumulated responses or what are accumulated responses or what is called permanent adaptations (Mohammed, H. A. and Aboul alala, A. A., 1984) [6].

This enriches the competition effort predominantly lactic system in which the player. This enriches the competition effort predominantly lactic system in which the player spends intensive effort, if we suppose that spends intensive effort, if we suppose that preparation of, Especial training in each event depend on the information offered about the exerted effort.

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In the view of that information in the view of that information, the training plan was plan was prepared. Moreover, the training units suit the type of the biochemical work of the competition effort to continue for a long time (Flah, H. A., 2010) [2].

**The Problem of Study**

There is related between the physical effort and adaptations resulted, also tries to keep on his balance in the regular and vital process inside the body in spite of all these circumstances that try to disable this balance. here, the physical members of the player are the special means of defeating and resistance by using the stored energy and rationalize of it through sending the working members which are the basis of resistance of the surrounded circumstances that constrains progress of the physical performance (Lazem M., 2012) [5].

The physical requirements of volleyball depend on providing the energy through performance on energy systems from three sources: lactic and aerobic and anaerobic with various percentages but the aerobic system be with an average that is less. That means that there were many physiological variables occur in heartbeat, blood pressure, vital capacity, respiratory rate and temperature. But the controversial question, that draw the attention of the researcher, is that: does this participate to increase the effort level for volleyball players or no?

Naturally, competition in the valley ball needs high physical level to enable the player to continue with a stable level through matches without any dysfunction or weakness in the performance. The researchers suffer from big difficulties. Especially, when matches continue more than three runs because the physical level retreat and fall back which affected their skills and plans. This studying distinguished many indicators that enable them to solve the problem through taking the consideration these indicators and reevaluate the previous results in order to get advantages to evaluate the training level.

**Aim of study**

To know the competition's impacts on the functional variables (throb- heat degree) with the volleyball's player.

**Results**

**Table 2:** The impact competition effort on some functional variables of the volleyball players.

Variables	pre		POST		Mean difference	T.test	Significance
	mean	S.D	mean	S.D			
pulse	80.00	5.292	97.78	9.404	-17.778	-6.100	0.000
Systolic pressure	117.67	7.483	129.56	9.488	-11.889	-6.394	0.000
Diastolic pressure	81.00	10.380	74.11	8.521	6.889	2.309	0.049
Vital capacity	4677.78	479.004	4538.89	555.528	138.889	1.038	0.330
Respiratory rate	24.44	2.297	33.33	2.062	-8.889	-10.000	0.000
temperature	36.64	0.296	36.133	.8703	0.511	1.875	0.098

The table no. (2) Shows that the level of significance at 0.05, there are differences between the Pre and Post measurement for (pulse, systolic pressure, diastolic pressure and respiratory rate) in favor of post measurement that shows effect of competition effort on variables mentioned above. While no there are differences between the Pre and Post measurement for (vital capacity and temperature) this confirms the hypothesis of study. (Mohammed, N. U. R., 2002) [7].

**Hypothesis**

What are the competition's impacts on the functional variables (throb-heat degree) with the valley ball's player?

**Methodology of study**

Experimental method was used because it is appropriate for achieving the objective of the study.

**Tools and means data collection:**

- Height measuring tape (cm).
- Electronic weighting machine (k.g).
- Sphygmomanometer (mmHg).
- Thermometer to measure body temperature ( c).
- Spirometer to measure vita capacity (ml).

**Statistical methods**

Statistical package social science spss package.

- Mean.
- Standard deviation.
- Skewness.
- T. test.

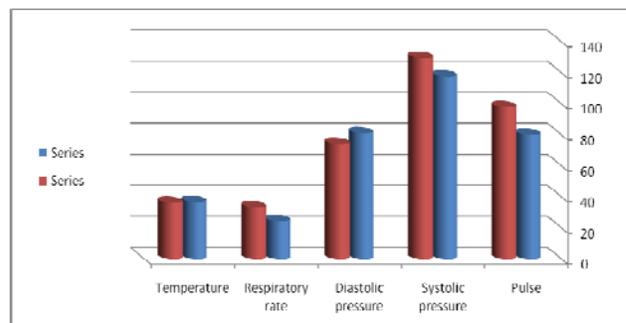
**Sample of Study**

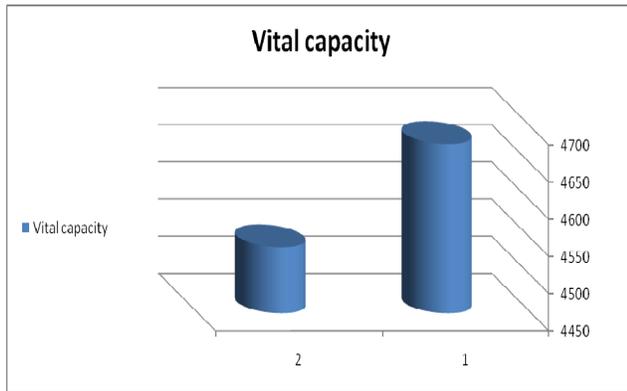
Purposely sample was selected from the youth players volleyball, It included (9) players, they play volleyball in M.S.M. college in physical education and sport in Aurangabad city.

**Table 1:** Homogeneity of study sample in some growth rates (Age, height, weight)

Variables	Unit	Mean	S.D	Skewness
Age	Year	16.78	0.667	0.254
height	Cm	172.89	9.981	-0.260
weight	Kg	58.22	7.293	0.467

The table no.(1) shows there are not statistically significant differences in mean and skewness between the sample of study in (age, height, weight) they were limited to the value of skewness between (-3,3+) which indicates the homogeneity of the sample of study.





### Discussion

Showed (T) test of samples associated shown in the table (2) as follows:

The results showed relating to each of the (pulse - systolic blood pressure - breathing rate) to the presence of significant differences between the averages of these variables in test tribal and posttest and for the benefit the post test, where the value is probability (P) smaller than the level of significance adopted in this study (0.05) than indicates to the impact of the effort positively on those variables this is consistent with (Thuraya. A. N., 2001) [4] The low pulse rate at rest after the effort athlete gives honest indicator in improving and development of the physiological level of efficiency and slow the athlete in the normal state pulse expresses the relationship acclimate the body and the effect of physical exertion fact it As for the variable blood pressure, diastolic observed from the above results and no statistically significant differences between the average diastolic blood pressure in the pre-test and post as the value of probability (0.049) which is smaller than the value adopted in this study, the moral level, and the result was that the difference was in favor of In other words, the pre-test notes averages of the value of the depreciation of the average in the post test (after the effort) than in the pre-test, suggesting that the effect was a negative voltage on the diastolic blood pressure.

The variables of vital capacity and heat has indicated test t for samples associated with the lack of statistically significant differences between the averages in the pretest and posttest where the probability P-values greater than the value of the significance level (0.05), although there is some differences are numerical differences, not significant, indicating that effort did not affect the two variables.

### Conclusions

1. The existence correlation statistically significant in some physiological variables (pulse) at volleyball players.
2. The existence correlation statistically significant in some physiological variables (systolic blood pressure) at volleyball players.
3. There is no correlation statistically significant in some physiological variables (diastolic blood pressure) at volleyball players.
4. There is no correlation statistically significant in some physiological variables (vital capacity) at volleyball players.
5. The existence correlation statistically significant in some physiological variables (breathing) at volleyball players rate.
6. There is no correlation statistically significant in some physiological variables (temperature) for at volleyball players.

### Recommendations

- Base on these Conclusions which we have reach according to the samples of the research; the researcher recommends the following.
- Taking care of the Anaerobic to raise the competency of the volleyball players during the matches and competitions.
- Arial training must be there for the players of volleyball and benefice from the rest periods during the matches to continue the muscle work for a long period. So energy will increase as a result of the metabolism.
- Preparing the required physiological adaptations for the players when performance by taking consideration the competition efforts in valley ball.
- Preparing similar studies individually and collectively for various categorical and ages.

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