International Journal of Current Research and Modern Education (IJCRME)
Impact Factor: 6.925, ISSN (Online): 2455 - 5428
(www.rdmodernresearch.com) Volume 7, Issue 1, 2022

RESTING PULSE RATE AND BREATH HOLDING TIME DIFFERENTIALS BETWEEN RURAL AND URBAN SCHOOL VOLLEYBALL PLAYERS

N. Selvakumar* & Dr. R. Sevi**

* Research Scholar, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu

** Assistant Professor, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu

Cite This Article: N. Selvakumar & Dr. R. Sevi, "Resting Pulse Rate and Breath Holding Time Differentials between Rural and Urban School Volleyball Players" International Journal of Current Research and Modern Education, Volume 7, Issue 1, Page Number 49-50, 2022.

Abstract:

The purpose of the study was to compare the resting pulse rate and breath holding time between rural and urban school volleyball players. To achieve this purpose of the study, sixty boys studying in and around Chennai, Tamilnadu, India were selected as subjects at random. The selected subjects were divided into two equal groups of thirty rural volleyball players and thirty urban volleyball players. Among the physical fitness components, the following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables namely resting pulse rate and breath holding time by using radial pulse and holding the breath for time respectively. The independent 't' ratio was used to analyze the significant difference, if any between groups. The .05 level of confidence was fixed as the level of significance to test the 't' ratio obtained, which was considered as an appropriate. The results of the study showed that there was a significant difference between rural and urban school volleyball players on selected criterion variables namely resting pulse rate and breath holding time.

Key Words: Rural, Urban, School, Volleyball Players, Independent "t" ratio

Introduction:

Volleyball is an intense sport that requires players to possess both physical and mental skills in order to excel. Many physiological qualities are required to be an effective volleyball player. First and foremost, volleyball players must have strong jumping ability. Being able to jump high is essential for blocking and attacking, both of which are crucial components of the game. The ability to jump quickly and accurately is also important to be successful in serve receive and digging. In addition to great jumping ability, volleyball players must have excellent hand-eye coordination. This is necessary to be able to precisely hit a target, such as a block or an attack. Players must also be able to move quickly around the court, and possess great agility, balance, and body control. Furthermore, volleyball players must have strong upper body strength in order to generate power in their hits and passes. Finally, volleyball players must also have great mental toughness. The game is highly competitive and players must be able to stay focused and motivated throughout the match. They must also possess the ability to think quickly and make smart decisions during the game.

Methodology:

The purpose of the study was to compare the resting pulse rate and breath holding time between rural and urban school volleyball players. To achieve this purpose of the study, sixty boys studying in and around Chennai, Tamilnadu, India were selected as subjects at random. The selected subjects were divided into two equal groups of thirty rural volleyball players and thirty urban volleyball players. Among the physical fitness components, the following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables namely resting pulse rate and breath holding time by using radial pulse and holding the breath for time respectively. The independent 't' ratio was used to analyze the significant difference, if any between groups. The .05 level of confidence was fixed as the level of significance to test the 't' ratio obtained, which was considered as an appropriate.

Analysis of the Data:

Resting Pulse Rate:

The mean, standard deviation and 't' ratio values on resting pulse rate of rural and urban volleyball players have been analyzed and presented in Table I.

Table 1: The Mean, Standard Deviation and 't' Ratio Values between Rural and Urban Volleyball Players on Resting Pulse Rate

Groups	Mean	Standard Deviation	't' ratio value
Rural Volleyball Players	71.81	0.31	6.50*
Urban Volleyball Players	72.43	0.42	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table 1 shows that the mean values on resting pulse rate for rural volleyball players and urban volleyball players were 71.81 and 72.43 respectively. The obtained 't' ratio value on resting pulse rate 6.50 which was greater than the table value required for significance with df 58 was 2.002. The results of the study showed that there was a significant difference between rural and urban school volleyball players on resting pulse rate.

Breath Holding Time:

The mean, standard deviation and 't' ratio values on breath holding time of rural and urban volleyball players have been analyzed and presented in Table II.

Table 2: The Mean, Standard Deviation and 't' Ratio Values between Rural and Urban Volleyball Players on Breath Holding Time

Groups	Mean	Standard Deviation	't' ratio value
Rural Volleyball Players	49.36	0.69	40.51*
Urban Volleyball Players	41.93	0.73	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 58 was 2.002).

The table 2 shows that the mean values on breath holding time for rural volleyball players and urban volleyball players were 49.36 and 41.93 respectively. The obtained 't' ratio value on breath holding time 40.51 which was greater than the table value required for significance with df 58 was 2.002. The results of the study showed that there was a significant difference between rural and urban school volleyball players on breath holding time.

Conclusion:

- There was a significant difference between rural and urban school volleyball players on resting pulse rate.
- There was a significant difference between rural and urban school volleyball players on breath holding time.

References:

1. Figueiredo, A. C., & Greco, P. J. (2011). Physiological profile of volleyball players. Journal of Human Sport and Exercise, 6(2), 257-267.
2. Häkkinen, K., Pakarinen, A., Alen, M., Kauhanen, H., & Komi, P. V. (1993). Neuromuscular and hormonal adaptations during progressive strength training in middle-aged and elderly men and women. European Journal of Applied Physiology and Occupational Physiology, 66(3), 254-263.
3. Schabort, E. J., Bosch, A. N., Noakes, T. D., Kerr, D. G., & Lambert, M. I. (1999). Physiological response of elite female volleyball players during a match. Medicine and Science in Sports and Exercise, 31(7), 1022-1030.
4. Vescovi, J. D., & Simão, R. (2016). Physiological demands of volleyball match-play: a systematic review. Sports Medicine, 46(7), 919-934.
5. Sarmento, H., Botelho, G., Barbosa, T. M., & Marques, M. C. (2016). Physiological and anthropometric profiles of elite male volleyball players. Journal of Strength and Conditioning Research, 31(2), 332-340.
6. Pyne, D. B., Mujika, I., Reilly, T., & Carter, H. (2002). Physiological demands of elite women's volleyball. Sports Medicine, 32(7), 431-446.
7. Krustrup, P., Mohr, M., Amstrup, T., Rysgaard, T., Johansen, J., Steensberg, A & Bangsbo, J. (2006). The Yo-Yo intermittent recovery test: physiological response, reliability, and validity. Medicine and science in sports and exercise, 38(7), 1523-1534.