



Analysis of Relationship between 1 Minute Burpee and Sit-ups of Players in Kerala

¹Dr. Lamlun Buhril, ²Tasio Tai

¹Associate Professor, ²Student

¹Sports Authority of India

Lakshambai National College of Physical Education, Trivandrum

Abstract: Background-The purpose of study was to find out the relationship between 1 minute Burpee Test and Sit-ups Test. Procedure and Methodology - For purpose of the study 50 (25boys and 25 girls) pursuing undergraduate and post graduate courses in SAI, LNCPE, Trivandrum were selected randomly. The selected variable was 1 minute Burpee Test and 1 minute Sit-ups Test. Statistical Technique – Pearson Product Moment correlation was used to find out the relationship between I minute burpee and sit-ups of players in Kerala. Result- clearly indicates that there is no significant difference between I minute burpee and sit-ups of players in Kerala. Conclusions: There is no significant difference was found between I minute burpee and sit-ups of players in Kerala

Index Terms - burpee test, sit-ups test.

I. INTRODUCTION

The “burpee” was born. Back then, it was slightly easier than its modern incarnation—no pushup in the middle, and no jump at the end. But Burpee recognized that it was still a supreme test of all-around fitness. The quick stand-plank-stand position change made it difficult for the heart to pump blood, **Burpee Dluginski notes.**

Royal Burpee wasn’t just ripped—he was also ahead of his time. In his published thesis, Burpee created roughly 300 measures of fitness, listed alphabetically from Age to Wrestling, his granddaughter says. He also pioneered the notion of fitness that could be catered to a person’s skill and ability, which paved the way for the discipline of personal training: “Since interest is sustained not by repeated failure at unsuitable tasks, but by reasonable success following conscientious effort,” he wrote, “it is obvious that physical education programs should be adapted to individual ability.” And so, as a fitness test, he devised a simple, four-step exercise:

1. Squat down and put both hands on the floor in front of you
2. Pop your feet backward into a plank position
3. Bring your feet back forward.
4. Stand back up.

Although the original burpee was far less punishing than the move we know today, it was nevertheless considered especially taxing, so much so that the military adopted it in 1942 as part of its fitness test for men enlisting in the armed services during World War II. As part of the overall test, soldiers were required to perform “squat thrusts” (as Burpee’s burpee was known at the time) for 20 seconds straight. By 1946, however, the military required burpee for one full minute—performing 41 reps in that time was considered excellent, while fewer than 27 was considered poor.

The abdominal muscle contribute in improving intra-abdominal pressure, stabilizing the vertebral column, and maintaining good posture (Michael, Erik, & Udo, 2010). Furthermore, they are related to flexion, torsion, and lateroflexion of the trunk and are important not only for athletes but also for common people. Hence, many training methods aiming towards reinforcing abdominal muscle groups have been proposed (Sands & McNeal, 2002). However, devices that can easily measure abdominal muscle strength are less developed. During the sit-ups test, subjects repeatedly bend and extend the torso at the hip for a specific period of time; hence, endurance of abdominal and

hip muscles is largely related (Demura, 2011). The relative simplicity of the sit-ups test and not requiring special devices makes this test extremely practical. Given that maximal strength is also an important factor that determines muscle endurance, if the maximal abdominal strength related to sit-ups is superior, it is assumed that abdominal muscle endurance is also superior.

METHODOLOGY:

SAMPLE: For the purpose of the study 50 (25 boys and 25 girls) pursuing undergraduate and post graduate courses in SAI, LNCPE, Trivandrum were selected randomly.

TOOLS: To measure burpee test, one minute burpee test was use and to measure sit-ups, the one-minute sit-ups test of AAPHER Fitness Test was used.

DATA COLLECTION: The test was administered to the student and the data was collected for one-minute burpee test and sit ups test in SAI campus, Thiruvananthapuram, Kerala.

DATA ANALYSIS: The collected data were put to statistical treatment by computing Pearson product moment correlation" to find out the differences if any, between one minute burpee and sit-ups of players in Kerala. The result has been presented in the following table:

RESULTS:

Table-1

Relationship between one minute Burpee and Sit-ups for men players in Kerala

Player	Variable	N	Mean	SD	r- value	sig
Men	One minute Burpee	25	21.64	3.30	.154	.462
	Sit-ups	25	41.40	9.13		

Not Significant ($p>0.05$)

There was no significant difference between one minute Burpee and Sit-ups for men players in Kerala as indicated in Table 1. The mean score obtained for One minute Burpee was 21.6400, and for Sit-ups was 41.4000, the corresponding standard deviation was 3.30 and 9.13 respectively. The **r-value** obtained was .154, which was not significant at 0.05 level.

Table 2

Relationship between one minute Burpee and Sit-ups for women players in Kerala

Player	Variable	N	Mean	SD	r- value	sig
Men	One minute Burpee	25	14.04	2.32	.257	.215
	Sit-ups	25	36.36	8.99		

Not Significant ($p>0.05$)

There was no significant difference between one minute Burpee and Sit-ups for women players in Kerala as indicated in Table 1. The mean score obtained for One minute Burpee was 14.04, and for Sit-ups was 36.36, the corresponding standard deviation was 2.32and 8.99respectively. The **r-value** obtained was .257, which was not significant at 0.05 level.

DISCUSSIONS ON FINDINGS

The result of this study shows that there is no significant difference between one minute Burpee and Sit-ups for men and women players in Kerala as calculated t value is lesser than tabulated t value.

The result may be insignificance as one minute burpee test involve the entire body movement whereas sit-ups concentrated more on the abdominal part of the body.

The result is not significance, one major contributing factor could be that one minute burpee test involve the shifting of body position for different count whereas sit-ups the exercise is limited to one continuous movement.

CONCLUSION:

There is no significant difference was found between one minute Burpee and Sit-ups for men players in Kerala

There is no significant difference was found between one minute Burpee and Sit-ups for women players in Kerala

REFERENCES

- [1]. Demura, S. (2011). Health and a sports science lecture (2nd ed., pp. 105-125). Tokyo: Kyorinsyoin.
- [2]. Michael, S., Erik, S., & Udo, S. (2010). Prometheus. In Lernatlas der anatomie (pp. 130-141). Tokyo: Igakusyoin.
- [3]. Sands, W. A., & McNeal, J. R. (2002). A kinematic comparison of four abdominal training devices and a traditional abdominal crunch. The Journal of Strength and Conditioning Research, 16, 135-141.
- [4]. Ponthieux, N. A., & Barker, D. G. (1963). An analysis of the AAHPER youth fitness test. Research Quarterly. American Association for Health, Physical Education and Recreation, 34(4), 525-526.
- [5]. Podstawski, R., Markowski, P., Clark, C. C., Choszcz, D., Ihász, F., Stojiljković, S., & Gronek, P. (2019). International Standards for the 3-Minute Burpee Test: High-Intensity Motor Performance. Journal of human kinetics, 69(1), 137-147.
- [6]. Higgins, J. J. (2004). An introduction to modern nonparametric statistics. Pacific Grove, CA: Brooks/Cole.

