



A STUDY OF YO-YO INTERMITTENT RECOVERY TEST LEVEL 1 (YYIRTL1) BETWEEN INDIAN AND BANGLADESH WOMEN CRICKETERS

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Abstract:

The Yo-Yo Intermittent Recovery (IR) Test is currently used to assess endurance performance in women cricketers. The purpose of present study was to assess the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1) between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh. The present study was conducted on 30 women Cricketers. Keeping in view the objectives, the players were categorized into two groups: Punjab women cricketers, India ($N_1=15$) and Dhaka women cricketers, Bangladesh ($N_2=15$). The age of subjects ranged between 18 to 25 years. The difference in the mean of each group for selected variable was tested by "t" test. The level of significance was set at 0.05. It is concluded from the above findings that significant differences were found among Punjab women cricketers, India and Dhaka women cricketers, Bangladesh for Yo-Yo Intermittent Recovery Test Level 1(YYIRTL1). The result indicated that the difference between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh for Yo-Yo Intermittent Recovery Test Level 1 are significant.

Keywords: Yo-Yo Intermittent Recovery test, endurance, women cricketers

1. Introduction

Cricket is the most popular sport in Commonwealth countries and one of the most popular sports in the world. The performance of cricket players is enhancing day by day, old records are broken and new records are forming; scores are reaching new

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heights, it is due to high intensity training of the players which help them to perform well. Today is the modern competitive cricket era. Every cricketer is in race to excel others, and cricket competitions have become fundamental mode of human expressions as they are one of the very important functions by which national and international recognition and prestige is gained.

Common exercises involved with cricket, batting and bowling include standing for long periods of time, bending, stooping and squatting. These exercises can burn a significant number of calories per hour and are a low to moderate-paced fitness activity. Anthropometry, Physical Fitness, and Physiological profiles play an important role in performance in various Sports and Games.

The Yo-Yo intermittent recovery test level 1 (Yo-Yo IR1) is the most utilized test for monitoring the ability to cope with intermittent exercise in team sports. The Yo-Yo Intermittent Recovery Test Level 1 test was developed to measure an athlete's ability to repeatedly perform high-intensity aerobic work. Since then, it has established itself as one of the most commonly used aerobic field tests for youth and recreational athletes. It has been shown to be a valid and reliable predictor of high-intensity aerobic capacity and VO_2 max amongst athletes from various sports and competition-levels.

There are three variations of the yo-yo intermittent recovery test: level 1, level 2 and the sub maximal test. The yo-yo intermittent recovery level 1 (YYIR1) focuses on an individual's ability to repeatedly perform high-intensity aerobic work. This test was developed by the Danish soccer physiologist Jens Bangsbo and his colleagues. The current investigation is to study the YO-YO Intermittent Recovery Test Level 1 (YYIRTL1) Between Indian and Bangladesh Women Cricketers.

2. Selection of Subjects

For the purpose of present study, thirty (N=30), women Cricket Players between the age group of 18-25 years were selected for the purpose of present study. The subjects were purposively assigned into two groups: Punjab women cricketers, India (N₁=15) and Dhaka women cricketers, Bangladesh (N₂=15).

2.1 Selection of Variables

A feasibility analysis as to which of the variables/skills could be taken up for the investigation, keeping in view the availability of tools, adequacy to the subjects and the legitimate time that could be devoted for tests and to keep the entire study unitary and integrated was made in consultation with experts. With the above criteria's in mind, the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1) was selected for the present study.

2.2 Statistical Technique Employed

Student's t-test for independent data was used to assess the between-group differences. The level of $p \leq 0.05$ was considered significant.

Table 1: Mean, Standard Deviation, and t-value of Punjab women cricketers, India and Dhaka women cricketers, Bangladesh with regard to the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1)

Yo-Yo Intermittent Recovery Test Level 1	Mean		SD		t-value
	Punjab women cricketers	Dhaka women cricketers	Punjab women cricketers	Dhaka women cricketers	
Level achieved	15.2	14.5	0.67	0.73	2.61

*Significant at 0.05 level

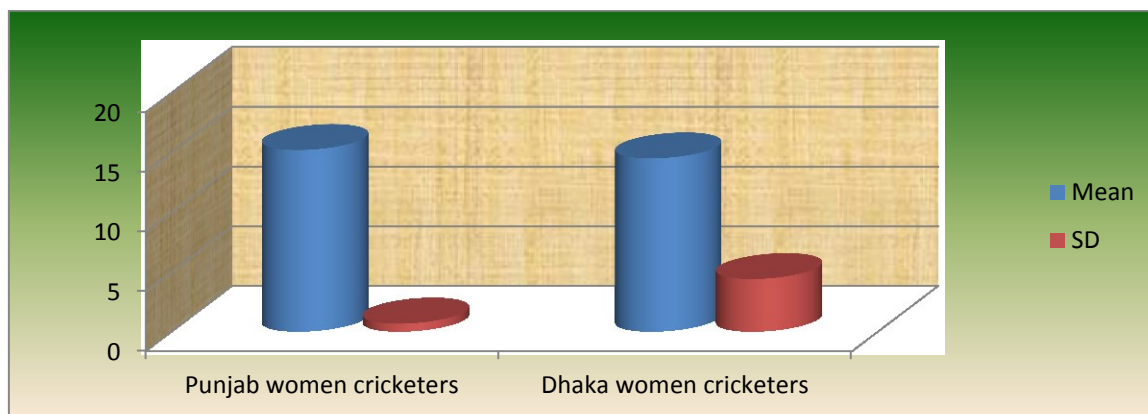


Figure 1: Graphical representation of Mean and SD of Punjab women cricketers, India and Dhaka women cricketers, Bangladesh with regard to the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1)

3. Results

The results pertaining to significant difference, if any, between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh were assessed using the Student's t test and the results are presented in Table 1.

It is observed from the Table 1 that mean value of Punjab women cricketers, India and Dhaka women cricketers, Bangladesh with regard to the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1) was 15.2 and 14.5 respectively, whereas the standard deviation (SD) was 0.67 and 0.73. The critical value of t at 95% probability level is lower (1.761) than the observed value of t (2.61). The data indicate that the difference between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh for Yo-Yo Intermittent Recovery Test Level 1 are significant.

4. Conclusions of the Study

Based on the findings of this study, the following conclusions were drawn: It is concluded from the above findings that significant differences were found between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh for Yo-Yo Intermittent Recovery Test Level 1. Punjab women cricketers perform higher repeatedly high-intensity aerobic work as compare to Dhaka women cricketers with regard to the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1).

4.1 Perspectives

The Yo-Yo Intermittent Recovery Test Level 1 test was developed to measure an athlete's ability to repeatedly perform high-intensity aerobic work. It has been shown to be a valid and reliable predictor of high-intensity aerobic capacity and VO₂ max amongst athletes from various sports and competition-levels. Bendiksen M. et al., (2013) stated that the submaximal YYIR1C testing can be used for frequent non-exhaustive fitness assessments (1). According to Ingebrigtsen (2014), systematic differences between the playing positions can be detected. Lately, field tests have become more frequently used in football than the laboratory tests used in Study I. Study II therefore aims to assess the validity of one of them, the Yo-Yo Intermittent Recovery test level 2 (Yo-Yo IR2) (2). Along with other field tests, the Yo-Yo IR2 has become an important tool for monitoring the physical fitness of football players. The current findings that significant differences were found between Punjab women cricketers, India and Dhaka women cricketers, Bangladesh for Yo-Yo Intermittent Recovery Test Level 1. Punjab women cricketers perform higher repeatedly high-intensity aerobic work as compare to Dhaka women cricketers with regard to the Yo-Yo Intermittent Recovery Test Level 1 (YYIRTL1).

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