

## **EFFECT OF PLAYING SURFACE ON MOTOR COORDINATIVE ABILITY OF FEMALE KABADDI PLAYERS**

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### **ABSTRACT**

The present study was conducted to find out the impact of playing surface i.e. clay and mat upon motor coordinative ability of female kabaddi players. To conduct the study, 50 female kabaddi players (Ave. age 23.92 yrs.) who took part in national level kabaddi tournaments, were selected as sample. The selection of subjects was done from players of such teams who stood in top four places of national tournament. Agility of the selected female kabaddi players was assessed by Shuttle Run test item of Cooper's JCR test (1974). This test is performed twice by the subject i.e. on clay and mat surface respectively. Results indicate that shuttle run performance of female kabaddi on clay surface was significantly better as compared to mat surface at .05 level of statistical significance. It was concluded that playing surface affect motor coordinative ability of female kabaddi players.

**Keywords:** Females, Shuttle Run, Kabaddi, Playing Surface

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## **INTRODUCTION**

The surfaces on which athletes run on can play a vital role in determining how well they perform. It has been documented that skill acquisition on different playing surface requires a lot of practice (Meyers and Barnhill, 2004). Kabaddi is a sport which is extremely popular in India. In India majority of tournaments are still conducted on clay fields whereas national and international tournament requires soft mat. Hence the Indian kabaddi players play on variety of surfaces which have different friction and traction. Since slight adjustment in terms of friction and traction is required on various surfaces, hence the same applies for kabaddi players also.

Being a popular sports all over the world these days, so many researchers such as Singh and Singh, 2013; Jaipal and Siwah, 2013; Mukesh, 2013 and many others have studied various factors which affect kabaddi performance but so far agility which is the important motor coordinative variable as far as kabaddi performance is concerned has not been assessed in relation to different playing surfaces.

In the view of above, the researcher decided to find out the impact of playing surface on motor coordinative ability of female kabaddi players. It was also hypothesized that the agility of female kabaddi players will be significantly influence by playing surface i.e. mat and clay.

## **METHODOLOGY**

### **Sample :**

To conduct the study, 50 female kabaddi players (Ave. age 23.92 yrs.) who took part in national level kabaddi tournaments were selected as sample. The selection of subjects was done from players of such teams who stood in top four places of national tournament.

### **Tools:**

Motor coordinative ability: To assess agility of the selected subjects, Shuttle run test item of Cooper's JCR test (1974) was used. The motor coordinative ability scores of subjects was ascertained by their shuttle run timings; hence lower the timing, higher the motor coordinative ability formula is used.

### Procedure:

A prior consent was obtained from concerned authority to conduct this study. The subjects were assured that the data will be used for research purpose only and it will be kept confidential. Shuttle run test was performed twice by a subject i.e. on clay and mat surface under the supervision of researcher.

### RESULTS AND DISCUSSION

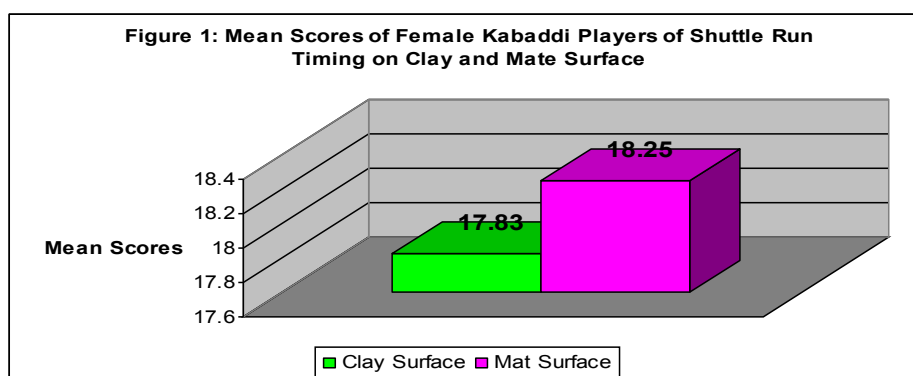
To compare agility of female Indian kabaddi players on clay and mat surface, paired sample 't' test was used. Analysis of data is presented in Table 1 and depicted in Figure 1.

**TABLE 1**  
**COMPARISON OF SHUTTLE RUN TIMINGS OF FEMALE KABADDI PLAYERS**  
**ON CLAY AND MAT SURFACES (N=50)**

| Variable    | Performance of Female Kabaddi Players |      |             |      | Mean Diff. | ‘t’   |
|-------------|---------------------------------------|------|-------------|------|------------|-------|
|             | Clay Surface                          |      | Mat Surface |      |            |       |
|             | M                                     | S.D. | M           | S.D. |            |       |
| Shuttle Run | 17.83                                 | 1.15 | 18.25       | 1.31 | 0.42       | 2.26* |

\* Significant at .05 level

A perusal of statistical entries reported in table 10 shows that mean shuttle run timings of female kabaddi players on clay surface was 17.83 while mean time on mat surface was 18.25. The mean difference of 0.42 on clay and mat surface on shuttle run performance indicate that agility of female kabaddi on clay surface was significantly better as compared to mat surface at .05 level of statistical significance ( $t=2.26$ ,  $p<.01$ ).



## **DISCUSSION**

On the basis of analysis, it is observed that it is difficult to adapt to different playing surface for a female kabaddi players. When a kabaddi player made transition from clay to mat surface, the un-adaptability of friction/traction hinders performance because coefficient of friction between foot and surface changes from clay to mat. In this perspective the results of the present study are not at all surprising.

## **CONCLUSION**

On the basis of results, it may be concluded that playing surface i.e. clay and mat do influence motor coordinative ability of female kabaddi players.

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