

# The Jump Performance of Urban and Rural of girls Volley Ball Players of Layyah, Punjab Pakistan

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## ABSTRACT

The study aimed to investigate the jump performance of Urban and Rural female volleyball players. The selected sample were (urban = 20) and (rural = 20) female players. An independent t-test was applied to compare the jump performance of double leg tuck jump, squat jump, pike jump single leg jump, vertical jump, jump and reach. Results showed the rural female volleyball players were superior in single-leg jump, inferior in double leg jump, pike jump, jump and reach than the urban female players. It is concluded the urban female volleyball players may found more opportunity for volleyball and athletics at school and college education. On the other hand, rural school girls have less opportunity of sports participation at which unable to develop their physical fitness. The government should conduct awareness and motivational program through coaching and physical education teachers to develop volleyball interest among rural and urban female students.

**Keywords;** *volleyball, school girls, college girls, vertical jumps, urban and rural*

## Introduction

Jumping are repeated movements in the game of volleyball that play an important part in offence and defence (Gladden, & Colacino, 1978). Smashing, service and blocking are the utmost vital skills that signify the success volleyball team during competitions (Lidor, & Ziv, 2010). The height of jumps also affects the performance of players in matches which associate crossing the ball while smashing, service and blocking (Nejic, Trajkovic, Stankovic, Milanovic, & Sporis, 2013). Precisely, the volleyball players having better jumping skill, also dominate during match performance. The improvement in jumping performance attracts the attention of common masses towards the basic skill and performance in sports (Ramirez-Campillo et al., 2015). Jumping performance largely depends upon one's muscular strength, agility and suppleness of the body. Regular physical training improves the potentialities of the athletes (Roozen, 2004). Besides, effective training can play a vital role in the overall fitness of athlete (Ramirez-Campillo et al., 2016). All

the world's athletes began to show interest in their training methodologies and focused mainly on the plyometric method (Robinson, & Owens., 2004). Explosive power enables the muscles to get their maximum strength in the shortest possible time which increase the vertical jumping performance (Barr, & Nolte, 2014). The reactive movement refers to the spring-like movement which rapidly uses explosive power (Rubley, Haase, Holcomb, Girouard & Tandy, 2011). According to previous researchers, these jumps should be tested in volleyball players because they are crucial skills in the game (Ziv, & Lidor, 2010).

This study would a pioneer attempt to compare the jumping performance of rural and urban female volleyball players of district Layyah, Punjab, Pakistan. It was the new addition to the body of literature with reference upon jumping performance focusing upon the girl Volley ballplayers of. It provides useful guidance to the coaches and trainers of the concerned fields.

## Material and Methods

The sample for this study was consist of female volleyball players who were recruited from the Government Degree College for Women District Layyah, Punjab, Pakistan. The study method the cross-sectional Twenty rural and (n = 20) urban female volleyball players were recruited. The urban female volleyball players those who living by birth in the city (municipality) area. In contrast, the rural female players who are living 20 km from the surrounding of the city, living in hostels or travel daily by bus to reach school for educational purpose. All the ethical requirements were fulfilled before the collection of data. Such as the study process was briefed to all the participants. The willingness of the participants was obtained through the consent letter. All the participants who took part in that study volunteers without getting any financial benefits. This whole process of research that enables the researcher to promptly attain the desired objectives and reach the destination successfully.

### The procedure of data Collection

The following variables were selected for the data collection as double-leg jump, tuck jump, squat jump, jump and reach, pike jump, single-leg tuck jump, single-leg vertical jump, and double-leg vertical jump. These variables variable were associated to examine the jumping performance of the female volleyball players. Data were obtained in respect of the respondents. In the profundity hop, the competitor encounters a stun on arriving in which the hip, knee, and lower leg extensor muscles experience a ground-breaking unpredictable withdrawal.

The double leg jump has followed the guidelines of (Taylor, Kantor, Hockenjos, Barnes, & Dischiavi, 2019). To execute the profundity hop, the competitor remains on a raised stage, as a rule not more prominent than 20–30 inches (51–76 cm) high, and after that means out and drops down in a vertical pathway to reach the floor. The stature utilized by most competitors is normally very low in the beginning times of preparing. The key is how high the competitor bounces in connection to the stature of the departure stage. Strategy and bounce stature is most significant right now. While the body is dropping, the competitor intentionally readies the muscles for the effect by straining the muscles. The ground surface whereupon the competitor drops down on ought to be fairly flexible, for the most part for the avoidance of damage.

After reaching the floor, the competitor at that point goes into slight leg flex to ingest a portion of the power for security. In any case, the fundamental pretended by the muscles and ligaments is to withstand the power that is knowledgeable about the arrival. This power is withstood in whimsical constriction. At the point when muscle withdrawal is adequately extraordinary, it can stop the descending development rapidly.

The following measurements were obtained as guided by (Çimenli, Koç, Çimenli, & Kaçoğlu, 2016). All the more explicitly, the muscles and ligaments experience a stretch (flighty constriction) while landing which is expected to retain a portion of the power created yet in particular, to withstand the power that is delivered by the stun that happens on the arrival. The more prominent the stun (powers experienced on getting), the more grounded the unconventional withdrawal will be, which thus creates considerably more noteworthy pressure. This pressure, which is potential power, is then given back in the arrival development when the solid compressions change to the concentric or shortening regime.

On the off chance that the competitor slowly improves his hop tallness, a similar stage stature proceeds until increments in bounce stature are never again watched. As of now, departure tallness is expanded by a couple of inches. If the competitor ceaselessly neglects to bounce high, the tallness of the drop-down is brought down somewhat. Most significant here is how high the competitor hops after the drop-down.

Generally, the competitor goes into a slight squat (hunch) after arriving in which the hip, knee, and lower leg joints flex. The departure or hop upward is executed in a grouping started by hip-joint expansion pursued by knee-joint augmentation which starts during the hip-joint expansion. As the knee-joint augmentation is occurring, lower leg joint expansion starts and is the main activity that happens as the departure (breaking contact with the ground) happens. Every one of the three activities contributes power to the upward hop, however, the knee-joint expansion is the major contributor.

### Statistical analysis

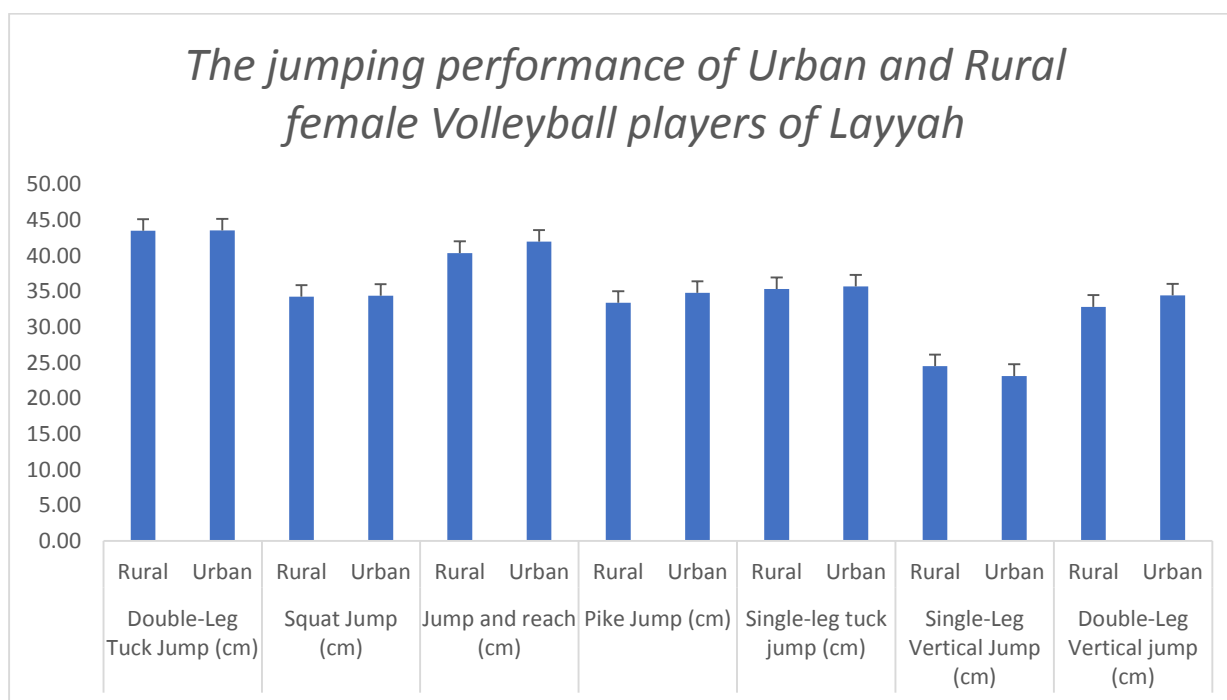
Mean, and standard deviation of all the selected variable was subscribed. An independent *t*-test was applied to compare the jump performance of urban and rural female volleyball players. The data normality was obtained through a Q-Q plot. On the other hand, the

test-re-test method was adopted to obtain the reliability of the instrument and investigator. The interclass correlation was applied for testing the reliability results of the test and re-test. After the required data are collected, it was tabulated and analyzed through SPSS.

### Results

The locality wise frequencies and percentages indicate that there were (n = 20) rural respondents and (n = 20)

urban were selected for data collection. The playing experience of the selected participants were intercollegiate and intervarsity volleyball competitions. Two coaches were requested to be a part of data collection to examine the performance of the players. All the statistical analysis was done by using SPSS software.



Results showing the mean difference between the rural and urban respondents in respect of their jumping performance. indicates that no significant difference was found between rural and urban. There was mean difference in squat jump (cm) = -1.17, jump and reach (cm) = -1.21, pike jump (cm) = -1.04, single-leg tuck jump (cm) = -0.31, single-leg vertical jump (cm) = 1.56, and double-leg vertical jump (cm) = -1.24. Hence, it is concluded that there is no significant effect of locality on the jumping performance of female Volleyball payers at the college level.

### Discussion and Conclusions

The results of the study supported by the various studies conducted in a different corner of the world. The recent progression in terms of improvement in jumping performance has attracted the attention of common masses towards this basic skill of physical performance in the field of sports (Ramirez-Campillo et al., 2015). Jumping performance largely depends upon one's muscular strength, agility and suppleness of the body. Several other factors like training, body

structure, heredity, health status and neuro-muscular coordination also play a significant role in producing dominating performance in jumping events. Regular and sustained physical training improves the potentialities of the athletes (Roozen, 2004). In perspectives of the activities, the hoping and jumping activities with the consideration to avail the benefits of the stretching and shortening momentum of the muscles involved in the activity (Thomas, French & Hayes, 2009). The vertical jump capability carries a significant role in attaining standard performance in volleyball, as in serving, smashing, blocking and reaching the ball over the net. A notable improvement in running and jumping activities is associated with the training programme (de Villarreal, Kellis, Kraemer & Izquierdo, 2009). Literature confirms that athletes from different types of sports are regular in training (Loturco, Pereira, Kobal, Zanetti, Kitamura, Abad & Nakamura., 2015). Jumping performance mostly depends upon the muscular strength and allied strength

factors and focuses on improving the strong ability of the athletes (Grieco et al., 2012).

Hence in it is concluded that slight variation occurs in jumping performance results after applying the training. The effect of weight on the mean difference between the rural and urban jumping performance of female volleyball players. The results in pretest jumping performances were not significantly different. To conduct awareness program and free coaching sessions for trainers and physical education teachers to teach them about the methodology related to volleyball. about the different exercise program. The government should provide equipment facilities to learn and utilize the benefits for team selection.

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- different but training can improve their jumping performances. On the other hand, height and weight were put their significant effect on the jumping performance. Therefore, it is concluded the urban and rural girls required specific training to attained the optimal performance

## Recommendations

The government should co

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