



Comparative Analysis of Self-Confidence, Endurance, and Physical Ability among Indigenous Sports Players at University Level

Alok Katara
Research Scholar/Assistant Professor
Government PG College Fatehabad, Agra.

Abstract

Physical education plays a vital role in enhancing both psychological and physiological capacities of university students. Indigenous sports, rooted in traditional cultural practices, contribute significantly to the development of physical fitness and personality traits among players. The present study aims to conduct a comparative analysis of self-confidence, endurance, and physical ability among university-level indigenous sports players. Indigenous games such as Kabaddi, Kho-Kho, and traditional wrestling demand agility, stamina, coordination, and mental resilience, which positively influence athletes' performance and personality development.

The study adopts a comparative research design involving university players actively participating in indigenous sports and those involved in general physical activities. Data were collected using standardized psychological scales and physical fitness tests. The findings indicate that indigenous sports players demonstrate higher levels of endurance, improved physical efficiency, and greater self-confidence compared to non-indigenous sports participants. The study highlights the importance of promoting indigenous sports within university curricula to achieve holistic development and preserve traditional sporting culture.

Keywords

Indigenous Sports, Self-Confidence, Endurance, Physical Ability, University Players, Physical Fitness

1. Introduction

Physical education has become an integral component of higher education systems as it contributes significantly to the physical, psychological, emotional, and social development of students. In the contemporary university environment, students are increasingly exposed to academic stress, sedentary lifestyles, technological dependence, and reduced participation in physical activities. These factors often lead to declining physical fitness levels, low endurance capacity, lack of confidence, and various psychological concerns such as anxiety and stress. Therefore, active participation in sports activities has gained importance as an effective means of maintaining overall health and personality development among university students.

Sports participation not only enhances physical efficiency but also plays a crucial role in shaping psychological attributes such as self-confidence, motivation, emotional stability, and leadership qualities. Among different forms of sports, indigenous sports hold special significance because they combine cultural traditions with intensive physical activity. Indigenous sports are deeply rooted in local heritage and emphasize natural movement patterns, teamwork, discipline, and mental alertness. Traditional Indian games such as Kabaddi, Kho-Kho, Mallakhamb, and wrestling require continuous physical engagement, strategic thinking, and quick reflex actions, which contribute to the development of endurance and physical ability.

At the university level, indigenous sports provide an accessible and economical platform for students belonging to diverse socio-economic backgrounds. Unlike many modern sports that require expensive infrastructure and specialized equipment, indigenous sports can be practiced with minimal resources while delivering maximum physical benefits. Participation in these games encourages regular physical activity, strengthens interpersonal relationships, and promotes psychological resilience among players.

In recent years, researchers and physical education experts have increasingly recognized the importance of indigenous sports in improving holistic fitness and mental well-being. However, limited comparative studies have examined the relationship between indigenous sports participation and key performance variables such as self-confidence, endurance, and physical ability among university athletes. Hence, the present study aims to conduct a comparative analysis

to understand how participation in indigenous sports influences these important physical and psychological parameters among university-level players.

2. Concept of Indigenous Sports

Indigenous sports refer to traditional physical activities that originate from the cultural practices, customs, and historical lifestyles of local communities. These sports have evolved over centuries and represent the physical culture and social values of a nation. In India, indigenous games such as Kabaddi, Kho-Kho, Gilli-Danda, Langdi, Mallakhamb, and Kushti have historically served as important means of physical training, recreation, and community bonding. These activities were traditionally practiced in villages and educational institutions to develop strength, endurance, courage, and discipline among youth.

One of the most distinctive features of indigenous sports is their reliance on natural human abilities rather than technological support or costly equipment. These games involve running, jumping, chasing, balancing, dodging, and coordinated body movements that simultaneously develop multiple components of physical fitness. Such multidimensional movement patterns enhance muscular strength, flexibility, agility, coordination, and cardiovascular endurance. Consequently, indigenous sports provide comprehensive physical conditioning compared to many specialized modern sports.

Apart from physical development, indigenous sports also contribute significantly to psychological and social growth. Participation in traditional games fosters teamwork, cooperation, leadership, and mutual respect among players. Since most indigenous sports are team-oriented, they encourage collective participation and social interaction, which enhances confidence and emotional bonding among university students. Players learn to manage competition, accept victory and defeat gracefully, and develop resilience in challenging situations.

Furthermore, indigenous sports play an important role in preserving cultural identity and promoting national heritage among younger generations. In the context of globalization and modernization, many traditional games face the risk of decline due to increasing preference for

modern sports and digital entertainment. Promoting indigenous sports within university physical education programs not only improves students' fitness levels but also ensures the continuation of cultural traditions.

Thus, indigenous sports represent a holistic approach to physical education by integrating physical fitness, psychological development, social interaction, and cultural preservation, making them highly relevant for university-level sports participation.

3. Self-Confidence among Indigenous Sports Players

Self-confidence is one of the most important psychological attributes influencing sports performance, personality development, and overall success among university students. It refers to an individual's belief in their own abilities, skills, and decision-making capacity while performing tasks under challenging situations. Participation in sports activities has long been recognized as an effective means of enhancing confidence levels, and indigenous sports particularly contribute to this development due to their dynamic and competitive nature.

Indigenous sports such as Kabaddi and Kho-Kho involve high levels of physical confrontation, rapid decision-making, tactical planning, and situational awareness. Players are required to make instant judgments while maintaining physical balance and mental composure. Continuous exposure to such competitive environments strengthens mental toughness and encourages players to trust their abilities. Successful execution of strategies during gameplay enhances achievement motivation and builds a strong sense of self-belief among university players.

Moreover, indigenous sports emphasize teamwork and collective performance rather than individual achievement alone. Players learn cooperation, communication, and leadership through coordinated team efforts. Positive feedback from teammates and successful participation in competitions significantly increases self-esteem and reduces performance anxiety. Students gradually develop confidence not only in sports performance but also in academic and social situations.

Regular participation also helps players overcome fear of failure and social hesitation. Indigenous sports provide repeated opportunities for participation and improvement, enabling athletes to develop resilience and emotional stability. As a result, university-level indigenous sports players generally demonstrate higher self-confidence, better decision-making abilities, and improved leadership qualities compared to students with limited sports involvement.

4. Endurance Development through Indigenous Sports

Endurance is a fundamental component of physical fitness that determines an individual's ability to sustain prolonged physical activity without experiencing excessive fatigue. It plays a crucial role in athletic performance as well as daily functional efficiency. Indigenous sports significantly contribute to endurance development because they involve continuous movement, repeated physical exertion, and sustained muscular engagement.

Traditional games require players to perform activities such as running, chasing opponents, maintaining defensive positions, and executing rapid offensive movements for extended durations. For instance, Kabaddi players must control breathing while maintaining physical contact and mobility, which enhances respiratory efficiency and cardiovascular endurance. Similarly, Kho-Kho demands constant speed variation, agility, and stamina, improving aerobic capacity and muscular endurance.

Regular engagement in indigenous sports strengthens heart and lung functioning by improving oxygen utilization and blood circulation throughout the body. These physiological adaptations increase energy efficiency and delay fatigue during prolonged activities. University players participating in indigenous sports therefore develop superior stamina levels compared to those involved in sedentary or low-intensity physical activities.

Additionally, endurance training through indigenous sports improves metabolic functioning and muscular resistance. Players become capable of sustaining high-intensity performance over longer periods, which positively influences overall physical health. Enhanced endurance also contributes

to improved concentration, mental alertness, and academic productivity among university students.

Hence, indigenous sports act as natural endurance-building activities that simultaneously enhance cardiovascular fitness, muscular stamina, and overall physical efficiency among university-level players.

5. Physical Ability among Indigenous Sports Players

Physical ability represents the overall functional capacity of an individual to perform physical activities efficiently and effectively. It includes important components such as muscular strength, speed, agility, flexibility, coordination, balance, and reaction time. Indigenous sports play a significant role in enhancing these physical abilities among university-level players because they involve multidirectional and continuous body movements that activate various physiological systems simultaneously.

Traditional indigenous games require players to utilize their entire body during participation. Activities such as sprinting, sudden turning, dodging opponents, jumping, and maintaining balance demand strong neuromuscular coordination and muscular control. For example, Kabaddi players must combine strength with agility to escape defenders, while Kho-Kho players depend heavily on speed and flexibility for effective performance. These movement patterns improve motor fitness and body coordination more naturally compared to repetitive gym-based exercises.

Participation in indigenous sports also enhances muscular strength and explosive power due to repeated physical engagement and resistance movements during gameplay. Players develop improved reaction time and body awareness, enabling them to respond quickly to changing game situations. Regular practice strengthens joints, improves flexibility, and reduces the risk of injuries by increasing muscular endurance and balance control.

Furthermore, indigenous sports promote functional fitness, which is essential for daily life activities as well as competitive sports performance. University players involved in traditional

games often demonstrate better posture, body control, and movement efficiency. The development of diverse physical abilities through indigenous sports contributes to overall athletic performance and long-term physical health. Therefore, indigenous sports participation significantly improves physical ability among university players when compared with less physically active individuals.

6. Research Methodology

The present study employed a comparative research design to examine differences in self-confidence, endurance, and physical ability among indigenous sports players at the university level. The methodology was carefully structured to ensure accuracy, reliability, and scientific validity of the findings.

6.1 Research Design

A quantitative and comparative research approach was adopted to analyze variations between indigenous sports players and non-indigenous sports participants. The study aimed to measure psychological and physical performance variables objectively through standardized testing procedures.

6.2 Sample Selection

The sample consisted of 120 university students aged between 18 and 25 years selected from different colleges and universities. Participants were divided into two equal groups:

- **Group A:** Indigenous sports players (Kabaddi, Kho-Kho, Wrestling, etc.)
- **Group B:** Non-indigenous sports or general physical activity participants

Both male and female players were included to maintain gender representation.

6.3 Variables of the Study

- **Independent Variable:** Participation in Indigenous Sports

- **Dependent Variables:**
 - Self-confidence
 - Endurance
 - Physical Ability

6.4 Tools and Instruments

The following standardized tools were used for data collection:

- Self-confidence scale/questionnaire
- Cooper 12-minute run test for endurance measurement
- Physical ability test battery including agility run, flexibility test, and strength assessment

6.5 Data Collection Procedure

Data were collected during scheduled university sports sessions. Participants were briefed regarding the purpose of the study, and informed consent was obtained. Physical fitness tests were conducted under standardized environmental conditions to ensure fairness and accuracy. Psychological data were obtained through structured questionnaires administered to participants.

6.6 Statistical Analysis

Collected data were analyzed using statistical techniques such as mean, standard deviation, and independent sample t-test to determine significant differences between groups. Comparative interpretation was used to evaluate the influence of indigenous sports participation on selected variables.

7. Results and Discussion

The analysis of collected data revealed significant differences between indigenous sports players and non-indigenous sports participants with respect to self-confidence, endurance, and physical ability. Indigenous sports players demonstrated comparatively higher performance levels across

all selected variables, indicating the positive impact of traditional sports participation on both psychological and physiological development.

With regard to **self-confidence**, indigenous sports players obtained higher mean scores compared to non-participating students. Regular exposure to competitive situations, teamwork, and performance-based challenges helped players develop belief in their personal capabilities. Participation in physically demanding games enhanced emotional control, decision-making ability, and mental resilience. The interactive nature of indigenous sports also reduced social anxiety and improved communication skills, which contributed to increased confidence levels among university athletes.

In terms of **endurance**, indigenous sports players performed significantly better in endurance tests such as running and stamina-based assessments. Continuous movement patterns involved in games like Kabaddi and Kho-Kho require sustained physical effort, which strengthens cardiovascular efficiency and muscular stamina. Players who regularly participated in these sports showed greater resistance to fatigue and improved recovery capacity. These findings suggest that indigenous sports act as effective endurance-training activities suitable for university students.

The results related to **physical ability** indicated that indigenous sports players possessed superior agility, flexibility, balance, coordination, and muscular strength. The multidirectional movements and rapid response requirements of traditional games improved neuromuscular coordination and reaction time. Indigenous sports provide functional training that enhances overall body efficiency rather than focusing on isolated physical components.

The discussion of findings confirms that indigenous sports participation contributes to holistic development by integrating physical fitness with psychological empowerment. The results align with previous research emphasizing that culturally rooted physical activities promote sustainable fitness and personality development among youth populations.

8. Educational Implications

The findings of the study have important implications for physical education programs at the university level. Modern educational institutions are increasingly concerned about declining student fitness levels and rising psychological stress. The inclusion of indigenous sports within university curricula can serve as an effective strategy to address these challenges.

Firstly, indigenous sports provide economical and accessible opportunities for mass participation since they require minimal infrastructure and equipment. Universities can easily organize training sessions and competitions without heavy financial investment. This promotes inclusive participation among students from diverse backgrounds.

Secondly, integrating indigenous sports into physical education programs helps in preserving cultural heritage while promoting national identity. Students develop awareness and appreciation of traditional sporting practices, thereby strengthening cultural continuity alongside physical development.

Thirdly, indigenous sports enhance life skills such as leadership, cooperation, discipline, and stress management. These qualities contribute to overall personality development and prepare students for professional and social responsibilities. Educational policymakers should therefore encourage structured indigenous sports programs, inter-university competitions, and talent identification initiatives.

Thus, the promotion of indigenous sports can play a vital role in improving student wellness, academic efficiency, and social harmony within higher education institutions.

9. Conclusion

The present study concludes that participation in indigenous sports has a significant positive impact on self-confidence, endurance, and physical ability among university-level players. Indigenous sports not only enhance physiological fitness components such as stamina, strength, agility, and flexibility but also contribute substantially to psychological development by improving confidence, motivation, and emotional stability.

University players engaged in traditional sports demonstrate higher physical efficiency and mental preparedness compared to non-participants. Indigenous games provide a holistic platform where physical activity, teamwork, cultural values, and psychological growth are developed simultaneously. These sports encourage active lifestyles and help combat problems associated with sedentary behavior and academic stress.

The study highlights the need for systematic promotion of indigenous sports within higher education systems. Universities should incorporate traditional games into regular training programs, organize competitions, and create awareness regarding their physical and psychological benefits. Encouraging indigenous sports participation will not only improve student health and performance but also preserve valuable cultural traditions for future generations.

Future research may focus on gender-based comparison, long-term training effects, and the relationship between indigenous sports participation and academic achievement among university students.

References

1. Biddle, S. J. H., Mutrie, N., & Gorely, T. (2015). *Psychology of physical activity: Determinants, well-being and interventions* (3rd ed.). Routledge.
2. Bompa, T. O., & Buzzichelli, C. (2019). *Periodization: Theory and methodology of training* (6th ed.). Human Kinetics.
3. Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3), 411–418. <https://doi.org/10.1017/S1368980099000567>
4. Gaurav, V., Singh, A., & Pathak, P. K. (2011). Indigenous games and their importance in physical education curriculum. *International Journal of Physical Education*, 4(2), 23–27.

5. Hardman, K., & Marshall, J. (2009). World-wide survey of school physical education. *International Journal of Physical Education*, 46(3), 2–21.
6. Krotee, M. L., & Bucher, C. A. (2007). *Management of physical education and sport* (13th ed.). McGraw-Hill.
7. Kumar, P. (2018). Role of traditional sports in physical fitness development among youth. *Indian Journal of Physical Education, Sports and Applied Sciences*, 8(1), 45–50.
8. Martens, R. (2012). *Successful coaching* (4th ed.). Human Kinetics.
9. Mathew, J. (2015). Comparative study of physical fitness variables among university athletes. *International Journal of Sports Science*, 5(2), 60–65.
10. Singh, H. (2017). *Science of sports training*. DVS Publications.
11. Singh, K., & Devi, R. (2019). Effect of sports participation on self-confidence among college students. *International Journal of Physical Education and Sports Sciences*, 14(1), 32–36.
12. Tudor-Locke, C., & Bassett, D. R. (2004). How many steps/day are enough? *Sports Medicine*, 34(1), 1–8. <https://doi.org/10.2165/00007256-200434010-00001>
13. Weinberg, R. S., & Gould, D. (2019). *Foundations of sport and exercise psychology* (7th ed.). Human Kinetics.
14. Wuest, D. A., & Bucher, C. A. (2015). *Foundations of physical education, exercise science, and sport* (18th ed.). McGraw-Hill Education.



15. Yadav, S., & Chauhan, R. (2020). Impact of traditional games on endurance and agility among university players. *Journal of Sports and Physical Education*, 7(4), 12–18.