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**Power of Throwball in Enhancing Muscle Strength and Mental Health**
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**ABSTRACT**

*Throwball is an emerging team sport that combines physical activity, coordination, teamwork, and strategic movement. Over recent years, sports scientists and health professionals have increasingly recognized the importance of recreational sports in improving physical fitness and mental wellbeing. This article explores the significant role of throwball in enhancing muscle strength and promoting mental health. Regular participation in throwball contributes to muscular endurance, cardiovascular fitness, body coordination, and flexibility while simultaneously reducing stress, anxiety, and depression. The social and recreational nature of the game also improves emotional stability, confidence, and teamwork skills. This paper highlights the physiological and psychological benefits of throwball and recommends its inclusion in educational institutions and community wellness programs.*

**Keywords:** *Throwball, Muscle Strength, Mental Health, Physical Fitness, Sports Psychology, Wellness, Team Sports.*

**Introduction**

Physical activity is essential for maintaining a healthy lifestyle and preventing various chronic diseases. Team sports, in particular, provide both physical and psychological benefits. Among these sports, throwball has gained popularity due to its simplicity, accessibility, and effectiveness in promoting fitness and social interaction.

Throwball is a non-contact sport played between two teams where players throw the ball across a net. The game demands agility, quick reflexes, coordination, upper body strength, and strategic teamwork. Unlike highly technical sports, throwball can be played by individuals of different age groups and skill levels, making it an ideal recreational and fitness activity.

Modern lifestyles often involve reduced physical movement, leading to obesity, muscular weakness, stress, anxiety, and mental fatigue. Participation in sports such as throwball can help counter these issues by improving muscle development and mental wellness simultaneously.

Throwball originated in England and later gained popularity in Asian countries, especially India and Pakistan. Educational institutions and sports organizations have promoted the game because of its easy rules and minimal equipment requirements.

Today, throwball is played at school, college, university, and professional levels. International competitions and federations have further contributed to its development as a recognized sport for fitness and recreation.

**Importance of Physical Activity in Modern Society**

The increasing use of technology and sedentary lifestyles have negatively affected human health.

Lack of exercise often results in:

- Obesity
- Muscle weakness
- Cardiovascular diseases
- Depression and anxiety
- Poor posture and flexibility
- Reduced social interaction

Sports participation is one of the most effective solutions to these problems. Throwball provides an enjoyable and structured form of exercise that promotes total body movement and mental relaxation.

### **Literature Review**

Previous research in sports science highlights that team sports significantly improve cardiovascular health, muscular strength, and psychological wellbeing.

- ACSM (American College of Sports Medicine) reports that moderate-to-high intensity sports reduce body fat and improve lean muscle mass.
- Weinberg & Gould emphasize that team sports enhance motivation, reduce stress, and improve emotional stability.
- Studies on recreational sports show that intermittent high-intensity movements improve metabolic rate and fat oxidation.

Although limited direct research exists on throwball specifically, related studies on volleyball and net sports indicate similar physiological and psychological benefits.

### **Throwball and Muscle Strength Enhancement**

#### **Upper Body Strength**

Throwball primarily involves repeated throwing and catching actions that strengthen the muscles of the:

- Shoulders
- Arms
- Chest
- Upper back

Frequent participation increases muscular endurance and improves upper body coordination.

#### **Lower Body Development**

Players continuously move, jump, bend, and change directions during the game. These movements strengthen:

- Quadriceps
- Hamstrings
- Calf muscles
- Gluteal muscles

Lower body strength is essential for speed, balance, and injury prevention.

#### **Core Muscle Activation**

The twisting and balancing movements used in throwball activate core muscles, including abdominal and lower back muscles. A stronger core improves posture, stability, and athletic performance.

#### **Muscular Endurance**

Throwball matches involve sustained physical effort. Continuous movement improves muscular endurance and stamina, enabling individuals to perform physical activities for longer durations without fatigue.

### **Flexibility and Coordination**

Throwball enhances flexibility due to stretching, reaching, and rapid movement patterns. It also improves hand-eye coordination and reaction time.

### **Throwball and Body Composition**

Regular participation in throwball contributes positively to body composition by:

- Reducing body fat percentage
- Increasing lean muscle mass
- Enhancing metabolic rate
- Supporting healthy weight management

The sport combines aerobic and anaerobic activities, making it effective for calorie burning and muscle development.

### **Cardiovascular Benefits of Throwball**

Throwball is an active sport that elevates heart rate and improves cardiovascular endurance. Benefits include:

- Improved blood circulation
- Better oxygen utilization
- Reduced risk of hypertension
- Enhanced lung capacity
- Improved heart health

Regular physical activity through throwball can significantly reduce the risk of lifestyle-related diseases.

### **Psychological and Mental Health Benefits**

#### **Stress Reduction**

Participation in sports stimulates the release of endorphins, also known as “feel-good hormones.” Throwball helps reduce daily stress and mental fatigue.

#### **Anxiety and Depression Control**

Regular physical activity is associated with lower levels of anxiety and depression. Team sports provide emotional support, social interaction, and a sense of belonging.

#### **Improved Self-Confidence**

Successful participation in throwball improves self-esteem and confidence. Achieving personal and team goals creates feelings of accomplishment and motivation.

#### **Social Interaction and Teamwork**

Throwball promotes communication, cooperation, and leadership skills. Strong social connections positively influence emotional wellbeing.

#### **Cognitive Function Improvement**

The game requires quick decision-making, concentration, and strategic planning, which help improve mental alertness and cognitive performance.

### **Throwball in Educational Institutions**

Educational institutions can use throwball as an effective activity for promoting student wellness. Benefits for students include:

- Improved physical fitness
- Better classroom concentration
- Reduced academic stress
- Enhanced discipline and teamwork
- Development of leadership qualities

Schools and universities should encourage regular throwball competitions and training programs.

### **Throwball for Women Empowerment**

Throwball has become particularly popular among women because it encourages participation in sports without requiring expensive facilities. The game helps women:

- Improve physical fitness
- Build confidence
- Develop leadership skills
- Enhance social interaction
- Promote mental wellbeing

Women's participation in throwball can contribute significantly to gender equality in sports.

### **Psychological Effects of Throwball Training**

#### **Stress Reduction**

Physical activity stimulates endorphin release, reducing stress levels and improving mood.

#### **Anxiety and Depression Control**

Team sports provide emotional support, social interaction, and distraction from negative thoughts, reducing symptoms of anxiety and depression.

#### **Improved Self-Esteem**

Skill development and performance improvement enhance self-confidence and self-worth.

#### **Social and Emotional Development**

Throwball encourages communication, cooperation, and leadership, strengthening emotional intelligence.

#### **Cognitive Benefits**

Rapid decision-making and game strategy improve concentration, alertness, and cognitive flexibility.

### **Role of Coaches and Trainers**

Coaches play a crucial role in maximizing the health benefits of throwball. Proper training programs should focus on:

- Warm-up and cool-down exercises
- Strength and conditioning
- Injury prevention
- Mental motivation
- Balanced nutrition guidance

Professional coaching enhances both performance and safety.

### **Methodology**

#### **Research Design**

A quasi-experimental design can be used with pre-test and post-test measurements.

#### **Sample**

- 30–60 participants (male and female)
- Age group: 15–25 years
- Selected from schools or universities

#### **Intervention**

- Throwball training program: 8–12 weeks
- Frequency: 3–5 sessions per week
- Duration: 60–90 minutes per session

#### **Variables**

##### **Independent Variable:**

- Throwball training program

### **Dependent Variables:**

- Body fat percentage
- Muscle mass
- Psychological wellbeing

### **Tools and Measurements**

- Body composition analyzer (or skinfold calipers)
- BMI and weight scale
- Psychological wellbeing questionnaire (e.g., WHO-5 index or similar scale)

### **Data Analysis**

- Paired t-test (pre vs post comparison)
- Descriptive statistics (mean, standard deviation)

### **Challenges in Promoting Throwball**

Despite its benefits, throwball faces several challenges:

- Limited awareness
- Lack of facilities
- Insufficient professional training
- Low media coverage
- Limited funding and sponsorship

Governments, sports federations, and educational institutions should collaborate to promote the sport at national and international levels.

### **Discussion**

The findings from existing literature and theoretical analysis suggest that throwball training is highly effective in improving body composition and psychological wellbeing.

Physiologically, the sport combines aerobic and anaerobic exercise, which is ideal for fat reduction and muscle development. Psychologically, its team-based structure enhances motivation and emotional stability.

Compared to isolated gym training, throwball offers additional social and cognitive benefits, making it a holistic fitness intervention.

### **Limitations of the Study**

- Limited availability of direct throwball-specific research
- Variations in training intensity among participants
- Environmental and nutritional factors affecting results
- Small sample size in most school-based studies

### **Recommendations**

The following recommendations can help promote throwball for health and fitness:

1. Introduce throwball programs in schools and universities.
2. Organize community-level competitions and awareness campaigns.
3. Encourage female participation in sports.
4. Conduct scientific research on throwball and health outcomes.
5. Develop professional coaching and training systems.
6. Promote throwball through media and sports organizations.
7. Introduce structured throwball training in educational institutions.
8. Encourage regular participation among both genders.
9. Conduct large-scale experimental studies on throwball.
10. Develop standardized training protocols for athletes.
11. Integrate throwball into health promotion programs.

## Conclusion

Throwball is more than just a recreational game; it is a powerful tool for improving physical fitness and mental health. The sport contributes significantly to muscle strength, cardiovascular endurance, flexibility, and body composition while simultaneously reducing stress, anxiety, and depression. Its social and team-based nature enhances confidence, communication, and emotional wellbeing.

In today's fast-paced and stressful world, throwball offers an enjoyable and accessible solution for maintaining a healthy body and mind. Educational institutions, sports organizations, and policymakers should actively promote throwball as part of health and wellness initiatives.

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