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# ENTIRE RESEARCH

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## Editorial

*Positive psychology can help sports and the world recover from the challenges posed by the Covid-19 pandemic*



**Raul Calderon Jr., Ph.D.**

*According to the Center for Systems Science and Engineering, Johns Hopkins University report of November 10, 2020, the latest numbers for Covid-19 cases globally were as follows:*

- (50,913,451 cases), (1,263,089 deaths), and (33,289,404 recovered).

*It is fair to say that the Covid-19 pandemic has affected millions of people in almost every country around the world and people from every walk of life. Although the effects of the pandemic have been felt worldwide, the effects are not equally distributed. In other words, the pandemic has impacted different countries, communities, economies, racial, and ethnic groups to varying degrees. For example, the United States, India, and Brazil, to mention a few, have experienced a huge impact economically and socially. The affected countries and individual communities have been fighting the pandemic for most of 2020 and continue to use different strategies to control the spread of the virus and minimize mortality. However, from the statistics cited above, there is no clear end in sight.*

*On the level of sports and sports competitions, the pandemic has negatively impacted sports at the international, national, and local levels. A mass disruption in professional, amateur and recreational sports competitions, scheduling, and training has resulted from the Covid-19 pandemic. For example, many sports like professional soccer, basketball, and volleyball, including the much anticipated 2020 Olympics scheduled in Tokyo, Japan were either canceled or postponed. The world of sports has experienced a very difficult year so far.*

*So what will happen next? Will, the countries of the world be able to recover, will the world of sports return to normal? Honestly, I don't think anyone can predict exactly what will happen. The outcome will depend on how well each country, community, and sport can handle the economic, political, social, and psychological ramifications of the pandemic.*

*As a health psychologist, I can offer a few suggestions to keep in mind as we move forward: 1) keep a positive mental attitude, that is, believing that working together we can overcome the negative effects of the pandemic, 2) we must accept our current situation, be it good or bad, because we can only move forward by knowing where we are, 3) learn lessons from this experience and prepare for future challenges, and 4) focus our attention on growth and positivity. As a wise man once said "what you focus on will grow stronger in your life", thus, if we are grateful for what we have, what we have accomplished, and what we look forward to, then that is what will grow stronger in our lives.*

*At times, events in our life and surroundings may seem overwhelming but we can learn to control how we handle and respond to any situation in our life. We can choose to be strong and positive or weak and negative. The choice is ours. So what will you choose?*

## 12-Week of New Core Strength Exercise Enhanced Balance in Female Adolescents

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### **Abstract:**

Adolescence is a dynamically evolving theoretical construct informed through physiologic, psychosocial, temporal and cultural lenses. This critical developmental period is conventionally understood as the years between the onset of puberty and the establishment of social independence. The characteristic skeletal growth spurt generally occurs in females between the ages of 10-12 and 12-14 in males; terminating in adult stature between the ages of 17-19 in females and by the age of 20 in males. Developmental growth includes significant increases in height, weight, and internal organ size as well as changes in skeletal and muscular systems. Since bones are growing faster than muscles, young adolescents may experience coordination and balance issues. Actual growing pains result when muscles and tendons do not adequately protect bones. From the literature search, no well-designed and controlled studies have previously examined the effect of core strength exercise on the balance of female adolescents. Move over, the 360° TitaniUM Core Strength Exercise® is the new invented core strength exercise. Therefore, the main aim of this study was to examine a 12-week of intervention with the 360° TitaniUM Core Strength Exercise® on the balance of female adolescents between pre and post intervention. 20 females age 14 to 16 years old were recruited for this study. Results revealed that 12 weeks 360° TitaniUM Core Strength Exercise® enhanced significant improvements of balance in female adolescents between pre-test and post-test [ $t(19) = -5.753, p < .001$ ]. From the current results, we can assume that the 360° TitaniUM Core Strength Exercise® is appropriate and essential training method to improve the balance in female adolescents.

**Keywords:** New Core Strength Exercise, Balance, Female Adolescents

### **Introduction:**

Adolescence is a dynamically evolving theoretical construct informed through physiologic, psychosocial, temporal and cultural lenses. This critical developmental period is conventionally understood as the years between the onset of puberty and the establishment of social independence (Laurence Steinberg & Morris, 2001). Adolescent physical growth and sexual maturation begin and unfold with significant variability influenced by a variety of factors including gender, race, body mass, environmental influences and overall health status (L. Steinberg, 2014).

The accepted mean age for the onset of puberty is simplified to 11 years, with boys beginning between the ages of 9 and 13.5 years, and girls between 7 and 13 years (Fornari & Dancyger, 2006). The World Health Organization (WHO) defines adolescents as individuals between 10 and 19 years, youth between 15 and 24 years, and young people between 10 and 24 years (Blum & Mmari, 2004). The characteristic skeletal growth spurt generally occurs in

females between the ages of 10-12 and 12-14 in males; terminating in adult stature between the ages of 17-19 in females and by the age of 20 in males (Knapp & VandeCreek, 2003).

Adolescents growth is accelerated and uneven (Caskey & Anfara, 2014), with growth spurts occurring about two years earlier in girls than boys (Liversidge, 2012). Developmental growth includes significant increases in height, weight, and internal organ size as well as changes in skeletal and muscular systems (Caskey & Anfara, 2014). Since bones are growing faster than muscles, young adolescents may experience coordination and balance issues. Actual growing pains result when muscles and tendons do not adequately protect bones (Caskey & Anfara, 2014). At such, resistance training with their own body weight is the most appreciate to be introduced to the adolescents during this time, especially their core strength.

Core strength training differs from many traditional weight training routines by working both the lower back and abdominals in unison. The 360° TitaniUM Core Strength Exercise® is a new sequence of exercises to strengthen the core region muscles. At such, well-developed core strength may contribute to stabilizing the core by stiffening the torso and transferring the energy of the legs to the upper extremities (Donath, Roth, Zahner, & Faude, 2015).

Balance is ability to maintain a stable posture with body mass centre in the domain of base of support while counteracting external or internal conflicts (Hosseimehr, 2010). Instability of balance can demonstrate main health problems in human beings, therefore knowledge of centre of gravity within the human body and support base is crucial for constant adjustments to the muscular activity and joint positioning, which simulate a motor function that ensures a connection among sight, deep sensory organs that support antigravity muscles to maintain the standing posture. Balance depends on coordinated integration of somato-sensory, vestibular and visual input (Seo, Park, & Kim, 2016).

Majority of previous studies related to core strength training and balance are demonstrated in adults (Myer, Ford, Brent, & Hewett, 2006). However, previous two studies on younger male football players (Brito et al., 2010; Daneshjoo, Mokhtar, Rahnama, & Yusof, 2012) were not experimental (one-group, pre-post design) and the power significance of their results appears questionable. From the literature search, no well-designed and controlled studies have previously examined the effect of core strength exercise on the balance of female adolescents. Move over, the 360° TitaniUM Core Strength Exercise® is the new invented core strength exercise. Therefore, the main aim of this study was to examine a 12-week of intervention with the 360° TitaniUM Core Strength Exercise® on the balance of female adolescents between pre and post intervention.

## **Method:**

### **Participants**

Participants of this study were recruited from the Secondary School under the adopted school's schemes of UMCares, University of Malaya. A total of 20 female students aged 14 to 16 years old were recruited, written consent forms were obtained from their parents and the school authority to conduct this study.

### **Instrumentations**

All participants were tested on Pre and Post Intervention with Lafayette Stability Platform with Digital Control. The intervention was carried out for 12 weeks, all data collected was analysed using SPSS version 22. The results of this study provided information

regarding the effect of 360° TitaniUM Core Strength Exercise® on balance among female adolescents.

The Lafayette Stability Platform with Digital Control Model 16030SR is designed to measure balance, which is essential to successfully performing many activities. The Stability Platform features fully integrated timing functions for test control and electronic angle measurement for unsurpassed accuracy.

### Procedures

The pre-test data were collected at the Motor Behaviour Lab, Centre for Sport and Exercise Sciences, University of Malaya. Trained project staff administered the testing following a standardized protocol that emphasized the confidentiality.

After completed the pre-test, the participants were briefed and guided to perform the 360° TitaniUM Core Strength Exercise® (Figure 1). All subjects were given a book of 360° TitaniUM Core Strength Exercise® as a reference.

The post-test data collected in the same Motor Behaviour Lab, Centre for Sport and Exercise Sciences, University of Malaya when the participants completed their 12-week intervention program. The same procedures in the pre-test were applied in the post-test. During the intervention period, the subjects began the training 3 times/ week for 12 weeks.

The 360° TitaniUM Core Strength Exercise® consisted of twelve isometric exercises: 1). double elbow prone bridge; 2). right elbow lateral bridge; 3). both legs supine bridge; 4). left elbow lateral bridge; 5). both hand prone bridge; 6). right hand lateral bridge; 7). left leg up supine bridge; 8). right leg up supine bridge; 9). left hand lateral bridge; 10). alternate left hand right leg; 11). alternate right hand left leg; 12). superman. All these exercises should have performed in sequence as figure 1.



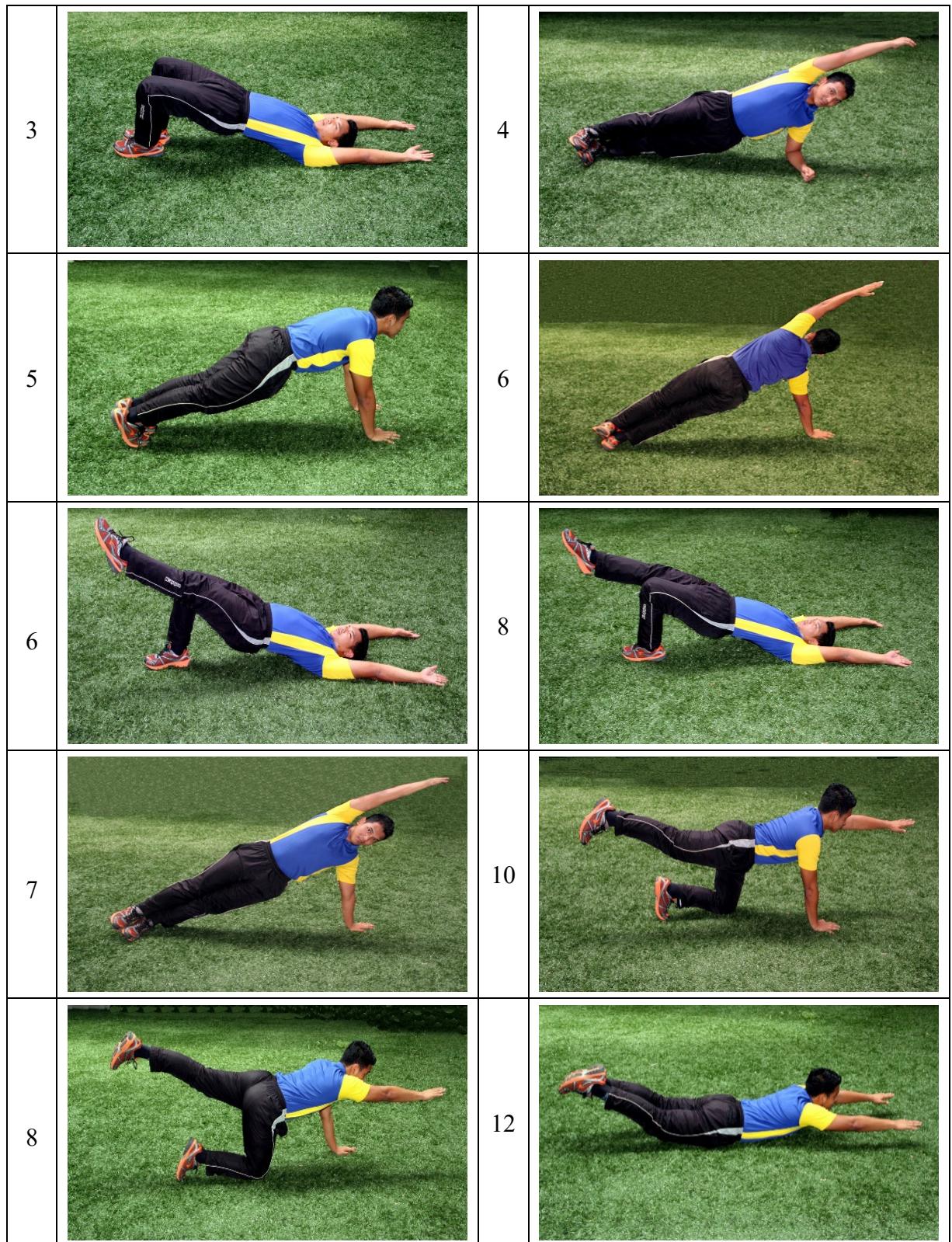


Figure 1: Sequence of Performing the 360° TitaniUM Core Strength Exercise®

Each exercise has to be maintained for 10 seconds in the first month and increases progressively in duration to perform these exercise from 10 seconds to 20 seconds as table 1. The researcher monitored during the participants performing these exercises to ensure that the technique is correct and timing each exercise during intervention period.

**Table 1. Schedule of Performing the New Core Strength Exercise**

Month	Frequency	Duration	Set
First month	3 sessions/week (Guided by researcher)	10 seconds/exercise	3
Second month	3 sessions/week (Guided by researcher)	15 seconds/exercise	3
Third month	3 sessions/week (Guided by researcher)	20 seconds/exercise	3

#### Statistical Analysis:

All data are expressed in mean and standard deviations (Mean  $\pm$  SD). All statistical analyses were performed using IBM SPSS Statistics for Windows, version 23, Armonk, NY: IBM Corporation and the significance level was set at  $P < 0.05$ .

#### Results:

All participants ( $n = 20$ ) adhered and completed the required 36 sessions of the 360° TitaniUM Core Strength Exercise® over 12 weeks training period.

**Table 2. Mean, Standard Deviation and t-test Results**

Test	Mean	Standard Deviation	t	df	Sig.(2 Tailed)
Pre-test	0.946	0.963	-5.753	19	0.001
Post-test	3.350	1.944			

Results indicate a significant improvements of balance between pre-test ( $M=0.946$ ,  $SD=0.963$ ) and post-test ( $M = 3.35$ ,  $SD = 1.944$ ),  $t(19) = -5.753$ ,  $p < .001$ .

#### Discussion

The main objective of this study was to examine the effectiveness of the 360° TitaniUM Core Strength Exercise® on balance in female adolescents between pre and post intervention. Results revealed that 12 weeks of the 360° TitaniUM Core Strength Exercise®, 3 sessions/week, from 10 seconds to 20 seconds/exercise progressively from first month to the following months is able to induce significant enhancement of the balance in female adolescents. Therefore, the novel of this new core strength protocol utilised within this study appears to provide a viable alternative method to strengthen the core strength muscles and directly improved the balance in female adolescents.

Findings from this study (Table 2) suggested that the balance of the participants in this study enhanced significantly between pre-test and post-test [ $t(19) = -5.753$ ,  $p < .001$ ] after



12-week of intervention. The results obtained is supported a few previous studies from the literature that balance is determined by the ability of the human body to keep the vertical position at rest, while walking, running or during other physical activities. The balance is the ability to maintain static or dynamic position of the body.

Current results supported previous report that the characteristic skeletal growth spurt generally occurs in females between the ages of 10-12 and 12-14 in males; terminating in adult stature between the ages of 17-19 in females and by the age of 20 in males. Also, this is a sensitive period of the balance between 11 and 14 years of age for girls and one year later for boys. Several authors (Balter, Stokroos, Akkermans, & Kingma, 2004) suggest that the high level of balance development is a direct result of the numerous repetitions which affects the motor response. Similarly, the age of participants for this study are between the range of sensitive period for balance. Therefore, repetitions will have affected the motor response where by the intervention was carried out with repetitions throughout 12 weeks.

As reported that the female adolescent's growth spurts occurring about two years earlier in girls than boys. Developmental growth includes significant increases in height, weight, and internal organ size as well as changes in skeletal and muscular systems. But, the most important point of physiological growth is the bones are growing faster than muscles, adolescents may experience coordination and balance issues. At such, this study may provide useful practical information that we must strengthen the muscles, especially the core muscles enable the female adolescents to support the spine and enhanced their balance.

As reported in the literature, the ability to maintain balance requires the complex interaction of neuromuscular, proprioceptive, vestibular, and visual systems. Current study supported previous results that to maintain balance, the brain receives feedback from various systems including visual, vestibular, and somatosensory (Hrysomallis, 2011). Also, balance training may lead to neural adaptations at the spinal and supraspinal level that suppress reflex activity. This suppression may improve muscle contraction properties and result in more stable joints, allowing for better balance (Beinert & Taube, 2013). Current study employed 12-week of intervention, 3 times/week, 3 sets/exercise are able to trigger the neural adaptations at the spinal and supraspinal level suppress reflex activity, lead to improved muscle contraction properties and more stable joints, ultimately enhance the balance.

In conclusion, the new core strength exercise invented (360° TitaniUM Core Strength Exercise®) is appropriate and essential training method to improve balance in female adolescents with 12 weeks of intervention. I would like to recommended all female adolescent should carry out core strength to enhance their balance enable them to perform their daily activities efficiently.

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## **Selection Standards and Forecasts in Training Phases for Runners 100m, 200m Vietnam**

**Dr. Dam Trung Kien:** Bac Ninh Sports University

### **Abstract:**

Through a survey of the current status of the training program, the content of the training center of athletes running 100m, 200m in Vietnam, based on the database of the Vietnam Athletics Federation has determined and to build the recruiting cabinet, forecast professional skills in each training period for runners running 100m and 200m.

**Keywords:** Standards, training 100m, 200m sprint.

### **Introduction:**

Athletics is a sport success in SEAGames and in Asian athletics competitions, especially at the Beijing Olympics in 2008 and the Rio 2016 Olympics. To develop these achievements, recruiting is an important task of the athletes training, this is the basic stage for coaches to find new factors and formulate a training plan during the training process. To select and evaluate the level of athletes are required to find the components of achievement on the basis of quantitative measurement.

Reference to domestic and foreign literature shows that advanced countries with developed sports science have given the content and standards for each age at each training period (3-5 years) for many contents. Athletics including running 100m, 200m male and female. Stemming from the above-mentioned practice, we study "Criteria for selection and forecasting in training periods for runners running 100 and 200m Vietnam". This is a necessary and strategic issue in the planning of Sprint athletes training to participate in the Olympics, Asiad and Seagames in the following years.

### **Research Methods:**

We have used methods of analyzing and synthesizing documents, investigating methods, pedagogical testing methods, statistical mathematical methods to solve research tasks.

### **Research Results:**

#### **1. Assess the status of the athletes running 100m, 200m Vietnam**

To assess the current situation of short runners, we rely on the results of the survey and through the following aspects:

- Actual situation of short-running athlete training establishments in our country in 2012: with 63 provinces and cities, there were only 13 training establishments with athletes running 100m and 200m and participating in the competition. Thus, the number of 13 establishments out of a total of 63 accounts for only 20.6%, concentrated in all three regions (North 4; South 3; the remaining 6 in the Central). Most of this distribution is concentrated in the Central region and all facilities are concentrated in the cities with economic development, with conditions to invest in the training process.

- The distribution of runners from 100m and 200m: According to the survey, athletes aged from 12 to 20 run 100 - 200 meters have 62 male athletes; 58 female athletes
- Thus, if we look at the fact that the current shortage of short-running athletes is worrisome, with such a thin force, we want to find, foster and train the athletes next to the upperclassmen and herds. Sister is a difficult job. Because, at the age of 12-14 years to achieve high results also take a long time (from 6 to 8 years) to be followed by the current performance; or aged 15-16 years also have to cost from 4-5 years later; or at the age of 17-20 years also need time from 1 to 3 years of practice.
- Professional standards of athletes running distances 100m, 200m: According to the selection criteria proposed by the Research Committee of the Athletics Federation (Table 1), sprints runners aged 12-14 should meet.

**Table 1. Selection criteria and training results requirements**

Content		Standard				
		Weak rating	Medium rating	Graded fairly	Ranked well	Excellent rating
Run 60m (s)	Male	< 9.10	< 8.80	< 8.50	< 8.30	< 8.00
	Female	< 9.80	< 9.50	< 9.20	< 8.90	< 8.60
Turn on 1 steps in place (m)	Male	< 1.95	< 2.00	< 2.10	< 2.20	< 2.30
	Female	< 1.75	< 1.80	< 1.90	< 2.00	< 2.10
Turn on 3 steps in place (m)	Male	< 5.20m	< 5.60	< 6.00	< 6.40	< 6.80
	Female	< 5.00m	< 5.40	< 5.80	< 6.20	< 6.60

Based on the results of Table 1, we compare with the test results that the obtained data, the athletes all have results from excellent to excellent. It proves that after selecting athletes training facilities effectively recruited athletes in the next stages. However, to have specific standards for each training period of 100m and 200m athletes requires us to research and develop standards in the next step.

## 2. Developing criteria for selection and forecast in the stages of training athletes running 100m and 200m:

We have used the actual situation of the training content, professional assessment and selection of pedagogical testing criteria on the subjects running athletes running 100m, 200m and built a scale for selection and Corresponding achievement forecast (results from tables 2 and 3. Example: ages 12 - 14).

**Table 2. Selection criteria chart for selection to female runs 100m-200m age 12-14**

Test	1	2	3	4	5	6	7	8	9	10
Height (cm)	146.9	149.5	152.1	154.7	157.3	159.9	162.5	165.1	167.7	> 167.7

Weight (kg)	33.81	36.23	38.64	41.06	43.47	45.89	48.30	50.72	53.13	> 53.13
Running 20m high speed (s)	3.24	3.12	2.99	2.87	2.74	2.62	2.49	2.37	2.24	< 2.24
Running 60m low start (s)	9.56	9.34	9.12	8.90	8.68	8.46	8.24	8.02	7.80	< 7.80
Runing 600m (ph:s)	2.31	2.25	2.18	2.12	2.05	2.00	1.52	1.40	1.39	< 1.39
Turn on 1 steps in place (cm)	1.85	1.92	1.98	2.05	2.11	2.18	2.24	2.31	2.37	> 2.37
Turn on 3 steps in place (m)	5.23	5.47	5.70	5.94	6.17	6.41	6.64	6.88	7.11	> 7.11
Dumbbell s over the back (m)	1.97	3.01	4.04	5.08	6.11	7.15	8.18	9.22	10.25	> 10.25

**Table 3. Selection criteria chart for selection to male runs 100m-200m age 12-14**

Test	1	2	3	4	5	6	7	8	9	10
Height (cm)	153.9	156.5	159.2	161.9	164.5	167.2	169.8	172.5	175.2	> 175.2
Weight (kg)	39.30	42.15	44.99	47.84	50.68	53.53	56.37	59.22	62.06	> 62.06
Running 20m high speed (s)	3.00	2.88	2.76	2.64	2.52	2.40	2.28	2.16	2.04	< 2.04
Running 60m low start (s)	8.81	8.57	8.32	8.08	7.83	7.59	7.34	7.10	6.85	< 6.85
Runing 600m (ph:s)	2.18	2.14	2.07	2.00	1.53	1.46	1.39	1.32	1.25	< 1.25
Turn on 1 steps in place (cm)	1.95	2.04	2.13	2.22	2.31	2.40	2.49	2.58	2.67	> 2.67
Turn on 3 steps in place (m)	5.54	5.89	6.23	6.58	6.92	7.27	7.61	7.96	8.30	> 8.30

Dumbbells over the back (m)	4.39	5.03	5.66	6.30	6.93	7.57	8.20	8.84	9.47	> 9.47
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From the test results tell us the physical condition of the athletes running 100m, 200m men and women today, also from the test results we rely on the average and standard deviation to build a scale according to scale 10. All athletes with average or above test results will meet the selection criteria in the respective periods.

### Conclusion

Through research, we have identified the situation of training facilities, athletes running 100m, 200m currently. It shows that the distribution in localities is not reasonable, still concentrated in places with strong investment funds. The age division in stages is also uneven, to get the team of athletes to inherit takes at least a few more years of training.

From the actual situation of the research results (pedagogical tests) we have based on the average, standard deviation to build a selection and forecasting scale for each male and female audience at different distances. Runs differently and by stages (tables 2 and 3).

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## **Study of Mandatory Styles and Spiritual Rehabilitation in the Selection of Ute Foundry Engagement in u11 Song Lam Nghe An**

**Ma. Tran Quang Dung:** Song Lam Nghe An Football Club

**Dr. Dam Trung Kien:** Bac Ninh Sports University

### **Abstract:**

The assessment of the morphological and physiological psychology in the selection of football players has identified the evaluation criteria for the Song Lam Nghe An (SLNA) U11 team. From there the standards set up under the 5-level classification to serve in the selection.

**Keywords:** Standards, morphology, psychology, physiology, football.

### **Introduction:**

Football is a direct competition, requiring the athlete to be skilled - tactical, good psychological quality, willpower, high level of mental flexibility and especially the comprehensive development of physical qualities such as strength, strength, endurance, coordination and flexibility.

Because of the rigorous requirements for football players in all aspects such as tactical, psychological, physical ...so the job of recruiting and training young athletes is extremely necessary. However, in the practice of recruiting and coaching in Vietnam, coaches often use their own experiences to recruit and train athletes at most training institutions. while these experiences are sometimes subjective, inaccurate and lack scientific basis. On that basis, as a young football coach of Song Lam Nghe An (SLNA), to contribute to improving the efficiency of recruiting the province's football players in particular and football in general. We study some morphological and psychological criteria in the selection of U11 SLNA football players.

### **Research Methods:**

Problem solving used methods: reading and analyzing references, pedagogical observations, seminar interviews, pedagogical tests, biomedical tests and statistical mathematics.

### **Research results:**

#### **1. Select the content to evaluate the morphology, psychophysiology in the selection of U11 Song Lam Nghe An football players**

In order to determine the content of the morphological and psychological evaluation in the selection of U11 SLNA football players, we conducted observations, surveys of football training centers, direct exchanges and interview by vote. Asked with 30 people who are experts, football coach for the results of table 1.

**Table 1. Current situation of psychological assessment content in selection for U11 football players**

No.	Content	Expert staff	Center staff	Coach
<b>1.</b>	<b>Morphological test</b>			
	Height	Use	Use	Use
	Quetelet index	Use	Use	Use
	Measure chest size	Do not use	Do not use	Do not use
	Measure the thigh	Do not use	Use	Do not use
	Measure the ankle	Use	Use	Use
	Measure the ratio of foot length B	Use	Use	Use
	Measure the percentage of leg length	Use	Use	Use
	Measure the foot rate of the foot	Use	Do not use	Do not use
<b>2.</b>	<b>Psychological test</b>			
	Single reflection time	Use	Use	Use
	Complex reaction time	Use	Use	Use
	Landon open loop	Use	Do not use	Do not use
<b>3.</b>	<b>Biomedical test</b>			
	Heartbeat	Use	Use	Use
	Living capacity	Use	Use	Use
	Feeling of quadriceps muscle	Use	Do not use	
	Quadriceps strength	Use	Do not use	Do not use
	Bone age test	Use	Do not use	Do not use

Based on the support of the Institute of Sports Science and Technology of Bac Ninh Sports University, the team used the mobile device to assess morphological, psychological and biomedical criteria. We have bravely selected the evaluation content oriented by experts, including:

Morphological test: 6 indicators

Psychological test: 3 indicators

Biomedical examination: 5 indicators

Test results are shown in Table 2.

**Table 2. Test results of morphological and physiological indicators of U11 SLNA football players (n = 32)**

No.	Content	The average value	Standard deviation
<b>1.</b>	<b>Morphological test</b>		
	Height (cm)	143.6	5.47



	Quetelet index (g/cm)	179	23.7
	Measure the ankle (cm)	19.2	1.44
	Measure the ratio of foot length B (cm)	79.03	11.8
	Measure the percentage of leg length (cm)	40.8	10.6
	Measure the foot rate of the foot (cm)	9.6	0.73
<b>2.</b>	<b>Psychological test</b>		
	Single reflection time (ms)	30.6	4.62
	Complex reaction time (ms)	40.9	13.8
	Landon open loop (s)	54.4	12.5
<b>3.</b>	<b>Biomedical test</b>		
	Heartbeat (BPM)	75.4	2.5
	Living capacity (ml)	2022	372.8
	Feeling of quadriceps muscle (kg)	11.06	2.77
	Quadriceps strength (kg)	22	5.6
	Bone age test (age)	11.3	0.15

## 2. Develop recruitment criteria for U11 Song Lam Nghe An football athletes

Based on the determination of the evaluation criteria on morphology, physiology of U11 SLNA football players, we have built a standard table on morphology and psychology in the selection for U11 football players of the club. Results table 3.

Thus, with the standard of morphology and psychology divided according to the classification, 11-year-old football players who achieve the above average test results will be admitted in the selection of SLNA football club.

### Conclude:

Through assessing the actual content of the assessment criteria on morphology, psychophysiological. We identified 14 contents that experts, football coaching centers, coaches are: Morphology 6, psychology 3, physiology 5. Based on the test we have built a standard table of figures ergonomics, psychophysiological classification in service of selection of U11 SLNA football players.

**Table 3. Morphological and psychological selection criteria for U11 SLNA football players**

No.	Content	Standard classification				
		Excellent	Good	Medium	Weak	Least
<b>Morphological test</b>						
1	Height (cm)	> 151	147-151	143-146	138-142	< 142
2	Quetelet index (g/cm)	> 214	191-214	179-190	155-178	< 155
3	Measure the ankle (cm)	< 17	17-18.4	18.5-19.2	19.3-20.6	> 20.6

4	Measure the ratio of foot length B (cm)	> 96	86-96	79-85	67-78	< 78
5	Measure the percentage of leg length (cm)	> 56	42-56	41-46	30-40	< 30
6	Measure the foot rate of the foot (cm)	< 8.5	8.5-9.1	9.2-9.6	9.7-10.3	> 10.3
<b>Psychological test</b>						
7	Single reflection time (ms)	< 24	24-27	28-30	31-35	> 35
8	Complex reaction time (ms)	< 20	20-33	34-41	42-54	> 54
9	Landon open loop (s)	< 36	36-47	48-54	55-66	> 66
<b>Biomedical test</b>						
10	Heartbeat (BPM)	< 74.2	75.5-74.2	75.4-76.7	76.8-82.9	> 82.9
11	Living capacity (ml)	> 2581	2209-2581	2022-2208	1649-2021	< 1649
12	Feeling of quadriceps muscle (kg)	> 15.2	12.5-15.2	11-12.4	8.3-10.9	< 8.3
13	Quadriceps strength (kg)	> 30	25-30	22-24	16.4-21	< 16.4
14	Bone age test (age)	> 11.7	11.4-11.7	11.3-11.39	11.1-11.29	< 11.1

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## The Selection of Basic Exercises for Physical Development of Preschoolers (Aged 5–6 years old) in Hanoi, Vietnam

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### Abstract:

For preschoolers (5-6 years old), health is of great importance since all the cognitive, emotion, behaviour and other aspects are developed based on the health of children. In order to develop physical health for preschoolers, it is necessary to use regularly and synchronously 21 physical exercises (divided into 4 groups), which are: Walking in pairs; Walking with various direction and speed; Walking on the balance bridge, going up and down the slope and Long-distance walking; Running under the specific direction of signal; Running slow and walking; Running fast in 25m; Running in different direction and Running with high thigh; High jumping to touch the object hanging above; Jumping across a small lines/bars...; Jumping with different styles; Jumping with run and Skipping; Throwing the objects; Throwing the objects to hit the small targets; and Rolling the objects to hit the moveable and unmovable targets; Climbing the ladder; Climbing the slide; Crawling under the caves or obstacles; and Crawling backward... The results of the four - month pedagogical experiment have confirmed that the selected basic exercises are accurate and effective. The physical condition of preschoolers (aged 5-6 years old) in Hanoi City, Vietnam has improved remarkably.

**Keywords:** preschool; basic exercises; children, physical development, Hanoi City.

### Introduction:

In the development process of every person, especially children of lower-kindergarten age (5-6 years old), health plays a very important role because of all perceptions, emotions, behaviors and other aspects are developed based on the health of children. Sports activities in a smart way and suitable for preschool children is a most positive and effective factor to promote children's health, and to develop harmouniously both physical and mental health. Being aware of the importance as well as the influence of physical training on children's physical development from the 1950s, the scientific work of EG Leevi-Gorinhpskaia researched and presented typical Indicators denoting physical performance in preschoolers. In 1960-1970, E.N. Vavilopva and Mr.G.Arakeerian also demonstrated a high intellectual development of children depending on their diet and physical exercise. In 1993, the scientific work of author Luu Tan (China) on children's physical training before schooling introduced a number of criteria and measurement methods in physical examination for children before school age: the indicators criteria on morphology, function, criteria for checking physical strength and basic operational capacity. In Vietnam, the aforementioned research mainly focus on the program development research, investigate some biological indicators of the children, the perspectives to orient the goals, content, methods and educational programs of preschoolers. Up till now, there has been a scare of the research on the field in the literature (Le, 1995); (Han, 1996); (Lam, 2007) have established a testing system and criteria for assessing the fitness level of preschoolers in the Central region, and also identified a measure

to improve the effectiveness of education for children aged 3-6 years old. Thus, the aforementioned authors have studied the physical development of preschool children, but there have not been any research projects on basic exercises for physical development of preschoolers. In fact, the physical condition of kindergarten children in Hanoi is not really good. According to the survey, preschoolers in Hanoi have used a lot of exercises during the hours of pre-school education for children, but the usage is not synchronized, frequent, which leads to the poor physical condition of children. Therefore, the selection of basic physical exercises for physical development of preschoolers (aged 5-6 years old) in Hanoi City Vietnam which is appropriate to the age and characteristics of the child will help them stay healthy and develop physically and mentally. In the future, they will become healthy, and useful to our society.

### Methodology

The study employed the methods: analyzing and synthesizing documents; interview, and seminar; anthropometric; pedagogical observation; pedagogical examination; Experimental pedagogy; and statistical mathematics.

In order to evaluate children's physical development, 06 tests: 10m running (gy), jumping in place (cm), throwing an object with a dominant hand (m), smashing and catching the ball with two hands (l /ph), balancing on one foot (gy), seated forward bend (cm) These tests were chosen based on Lam (2007)'s work, the interviews with consultants, and PE teachers in many kindergarten in Hanoi, Vietnam.

## 1. Findings and discussion

### 1.1 Physical condition of kindergarten students in Hanoi, Vietnam

In order to assess the height and weight of preschoolers (aged 5-6 years old), we conducted a measurement, combined with the formula of the nutrition institute, by entering the birth dates of 42 boys and 42 girls of preschool in Hanoi (divided into 2 groups, experimental group and control group) into a board system, the machine will automatically measure and compare the height of children according to the age regulations with the current situation of children. To check and classify the child's physical fitness, we used 6 TEST. The results are shown in Table 1.1 and Table 1.2.

**Table 1.1. The results of the physical tests of the kindergarten students (aged 5-6 years old) in control group and experimental group in Hanoi, Vietnam**

Content	Boy (n = 21)		Girl (n = 21)	
	Control Group	Experimental Group	Control Group	Experimental Group
Height (cm)	109.2 ± 2.167	108.1 ± 1.911	100.3 ± 1.961	100.9 ± 1.791
Weight (kg)	23.81 ± 2.247	23.71 ± 2.02	21.05 ± 1.741	21.37 ± 1.765
10m running (gy)	2.492 ± 0.154	2.406 ± 0.151	3.012 ± 0.210	3.053 ± 0.262
Jumping in place (cm)	91.38 ± 18.97	93.88 ± 15.49	86.77 ± 10.80	86.82 ± 10.84

Throwing an object with a dominant hand (m)	6.072 ± 1.135	6.474 ± 0.466	4.138 ± 1.253	4.111 ± 1.293
Smashing and catching the ball with two hands (l/ph)	13.55 ± 7.081	15.52 ± 4.362	14.58 ± 7.101	13.71 ± 6.506
Balancing on one foot (gy)	7.432 ± 4.809	9.938 ± 4.665	6.685 ± 4.436	6.785 ± 4.301
Seated forward bend (cm)	2.939 ± 2.146	3.322 ± 2.396	2.471 ± 2.029	2.401 ± 2.014

The results from table 1.1 show that the height of boys and girls of the control group and experimental group has no significant difference. There existed children in both groups experiencing overweight and obesity.

In general, results of the testes are not high. The average time for completing 10m of the boys in the two groups were mostly lower than the expectation (the random group was 2,492 seconds while the experimental group was 2,406 seconds). Jumping in place's results of the random group was 91.38cm, while the experimental group was 93.88cm (for boys); and 86.77cm and 86.82cm (for girls). In the test of hand-throwing, the average result for random group was 6,072m, while the experimental group was 6,474m. In general, the results of physical tests of kindergarten students in random and experimental groups have no significant difference; This difference is at probability  $P > 0.05$ ; so it is not significant.

**Table 1.2. The results of classifying fitness level based on the standard of the preschoolers (aged 5-6 years old) in Hanoi, Viet Nam**

	Content	Control Group			Experimental Group		
		Good %	Pass %	Fail %	Good %	Pass %	Fail %
		Boy (n = 21)					
1	10m running (gy)	19.05	52.38	23.81	14.28	57.14	23.81
2	Jumping in place (cm)	14.28	42.86	42.86	14.28	47.61	38.11
3	Throwing an object with a dominant hand (m)	9.52	61.91	28.57	19.04	52.38	28.58
4	Smashing and catching the ball with two hands (l/ph)	14.28	47.62	38.10	14.28	47.62	38.10
5	Balancing on one foot (gy)	4.76	57.14	38.10	9.52	57.14	33.33
6	Seated forward bend (cm)	9.52	61.90	28.57	14.28	57.14	23.80
		Girl (n = 21)					
1	10m running (gy)	0	61.91	38.09	4.76	57.14	38.10
2	Jumping in place (cm)	4.76	61.91	33.33	14.28	52.38	33.33
3	Throwing an object with a dominant hand (m)	9.52	52.38	38.10	4.76	61.91	33.33
4	Smashing and catching the ball with two hands (l/ph)	23.81	52.38	23.81	19.04	52.38	28.57
5	Balancing on one foot (gy)	9.52	57.14	33.33	14.28	57.14	28.57
6	Seated forward bend (cm)	14.28	57.14	28.57	23.80	61.90	14.28

The number of children who failed to meet the requirements of each test is quite high (from 14.28% - 42.86% depending on the test). The results between control group and experimental group were insignificant and not significant at  $P > 0.05$ . (table 1.2).

## **1.2 The selection of basic exercises for the physical development of preschoolers (aged 5-6 years old) in Hanoi, Vietnam.**

### **1.2.1. The selection of basic exercises for the physical development of preschoolers (aged 5-6 years old) in Hanoi, Vietnam.**

Based on the five Principles of exercises selection (the selected exercises must have physical development orientation for preschool children in general and preschool children aged 5-6 years old in particular:

- be suitable for the level and mind characteristics of preschool children and also their training conditions;
- reflect the diversity and excitement of training for preschool children;
- be systematic and logic;
- and ensure the high practicality),

we propose 30 exercises to get the feedback of 50 teachers – those who are directly involved in teaching children of five pre-schools in Hanoi City Vietnam. We choose exercises that are accepted by more than 80% of experts and teachers. The results are shown in Table 1.3.

**Table 1.3. Results on selecting basic physical exercises for physical development of preschoolers (5-6 years old) in Hanoi (n=50)**

No.	Type of exercises	Major training effects	Approval	Percentage
<b>Exercises for improving walking skills</b>				
1	Walking in pairs	Improve body's control and rhythm	41	82
2	Walking through low obstacle	Strengthen thigh muscles and develop balance capacity	35	70
3	Walking with hands up	Strengthen back, stomach, and arms, and develop balance and rhythm.	33	66
4	Walking with various direction and speed	Improve agility, flexibility of movement	45	90
5	Walking on the balance bridge, going up and down the slope	Develop balance capacity	44	88
6	Walking backward	Develop balance capacity and rhythm	37	74
7	Long-distance walking	Develop endurance capacity	42	84
<b>Exercises for improving running skills</b>				
1	Running in circles, in narrow roads	Develop balance capacity and rhythm	37	74
2	Running under the specific direction of signal	Develop flexibility, balance and rhythm	43	86

3	Running slow and walking (200 – 300m)	Enhance cardiopulmonary function and develop endurance capacity	42	84
4	Running fast in 25m	Develop speed and flexibility	44	88
5	Running in different direction	Improve speed, flexibility, being able to quickly change	43	86
6	Running with high thigh	Strengthen the thigh muscles.	43	86
<b>Exercises for improving jumping skills</b>				
1	Jumping forward	Strengthen leg bounce and flexibility	35	70
2	High jumping to touch the object hanging above	Improve jumping skills and rhythm	47	94
3	Jumping across a small lines/bars...	Improve leg and thigh muscles; Develop endurance, balance capacity and rhythm	48	96
4	Jumping with different styles	Improve flexibility and rhythm	45	90
5	Jumping with run	Improve jumping ability and rhythm	45	90
6	Skipping	Improve rhythm capacity and visual motor skills	46	92
7	Hopping	Improve leg strength and flexibility	25	50
<b>Exercises for improving throwing skills</b>				
1	Rolling the object to hit the target	Strengthen hand wrists and muscles	33	66
2	Throwing the objects	Strengthen the back's muscles, shoulders and arms; Develop the rhythm	46	92
3	Throwing the objects to hit the small targets	Develop the throwing accuracy	45	90
4	Rolling the objects to hit the moveable and unmovable target	Strength hands' muscles; Develop the throwing accuracy	43	86
5	Snow-ball throwing	Increase the power of arms, and body; Develop the throwing accuracy; Develop rhythm and endurance capacity; Improve body's reaction	25	50

<b>Exercises for improving climbing and crawling skills</b>				
1	Climbing the ladder	Strengthen the power of hands, feet; Increase the flexibility, skillfulness and bravery	50	100
2	Climbing the slide	Strengthen the power of hands, feet and body; Increase the flexibility of movement	41	82
3	Going up and down the stairs	Strengthen the power of legs; Increase balancing capacity, rhythm and endurance	39	78
4	Crawling under the caves or obstacles	Increase flexibility and rhythm of movements	45	90
5	Crawling backward	Increase flexibility and rhythm of movements	44	88

- Walking capability development exercises: out of seven exercises, two exercises whose the results range from 66% - 74% were not selected, and four exercises: Walking in pairs; Walking with various direction and speed; Walking on the balance bridge, going up and down the slope; Long-distance walking exercises whose results are from 82% - 90% were selected.
- Running capability development exercises: out of six given exercises, one was not selected: Running in circles, in narrow roads (74%). The five remaining exercises with a result of 84% - 86% were selected are: Running under the specific direction of signal; Running slow and walking (200 - 300m); Running fast in 25m; Running in different direction; Running with high thigh.
- Jumping capability development exercises: out of seven given exercises, jumping with Jumping forward and Hopping exercise was not selected (50% - 70%); the remaining five exercises whose results are from 92% - 96% were selected. These five exercises are: High jumping to touch the object hanging above; Jumping across a small lines/bars...: Jumping with different styles; Jumping with run; Skipping.
- Pushing capability development exercises: out of five exercises: two exercises with the results from 50% - 66% were not selected; the three remaining exercises with the results of 86% - 92% were selected, namely: Throwing the objects: Throwing the objects to hit the small targets; Rolling the objects to hit the moveable and unmovable target.
- Climbing and crawling capability development exercises: out of five given exercises: Going up and down the stairs the ladder with the results of 78% was not be selected, while four other exercises with the results from 82% - 100% were selected, which are: Climbing the ladder; Climbing the slide; Crawling under the caves or obstacles; Crawling backward.



### 1.2.2. Experimental results assessing the effectiveness of the selected basic exercises for physical development of preschoolers (aged 5-6 years old) in Hanoi, Vietnam

The experiment process was carried out in 4 months in 84 preschool children who were divided into 2 groups: experimental and control; Each group consisted of 21 boys and 21 girls. The control group performed the exercises according to the current program. Experimental group performs selected exercises in PE lessons during the week and in the first 30 minutes of daily activities, every week.

After the research period, the results of the physical fitness assessment have been synthesized and presented in table 1.4 and 1.5.

It can be seen from table 1.4 that the control group's test results showed initial but not significant growth, yet this difference was insignificant and not significant at the threshold  $P > 0.05$ .

When compared with the initial test results, the experimental group also experiences a huge increase with an average W% of 33.51 for boys, and 32.14 for girls.

**Table 1.4. The physical fitness assessment results of preschoolers (aged 5-6 years old) in experimental group and control group pre and post experiment.**

Group	TEST	Boys (n=30)		Girls (n=24)	
		$\bar{x}_{TTN} \pm \delta$	$\bar{x}_{STN} \pm \delta$	$\bar{x}_{TTN} \pm \delta$	$\bar{x}_{STN} \pm \delta$
Control Group	10m running (gy)	2.492 ± 0.154	2.428 ± 0.167	3.012 ± 0.210	2.677 ± 0.133
	Jumping in place (cm)	91.38 ± 18.97	105.9 ± 10.78	86.77 ± 10.80	92.23 ± 6.169
	Throwing an object with a dominant hand (m)	6.072 ± 1.135	6.597 ± 0.959	4.138 ± 1.253	5.182 ± 0.526
	Smashing and catching the ball with two hands (l/ph)	13.55 ± 7.081	16.51 ± 6.337	14.58 ± 7.101	17.61 ± 2.918
	Balancing on one foot (gy)	7.432 ± 4.809	10.38 ± 2.895	6.685 ± 4.436	10.27 ± 3.710
	Seated forward bend (cm)	2.939 ± 2.146	4.428 ± 2.488	2.471 ± 2.029	3.612 ± 0.312
Experimental	10m running (gy)	2.406 ± 0.151	2.150 ± 0.153	3.053 ± 0.262	2.581 ± 0.134

Group	Jumping in place (cm)	93.88 ± 15.49	113 ± 5.473	86.82 ± 10.84	97.29 ± 7.494
	Throwing an object with a dominant hand (m)	6.474 ± 0.466	7.627 ± 0.573	4.111 ± 1.293	5.636 ± 0.678
	Smashing and catching the ball with two hands (l/ph)	15.52 ± 4.362	25.05 ± 3.278	13.71 ± 6.506	20.92 ± 5.187
	Balancing on one foot (gy)	9.938 ± 4.665	15.15 ± 3.022	6.785 ± 4.301	13.31 ± 4.777
	Seated forward bend (cm)	3.322 ± 2.396	6.613 ± 2.810	2.401 ± 2.014	4.656 ± 1.813

In comparison the results, the experimental group had a different increase to the random group, with boys from 2.676 to 5.430 and  $p < 0.01$ , girls from 2.284 to 2.366 and  $p < 0.05$ . In the experimental group, the growth of girl group changed from 3.61% to 25.77%; boys grew from 6.74% to 39.58% and had higher growth than girls, depending on the content.

**Table 1.5. The growth of preschoolers (aged 5-6 years old) in experimental group and control group.**

TEST	Trẻ trai (n=21)				
	$\bar{x}_{DC} \pm \delta$	$\bar{x}_{TN} \pm \delta$	t	P	W (%)
10m running (gy)	2.428 ± 0.167	2.150 ± 0.153	5.430	<0.01	12.17
Jumping in place (cm)	105.9 ± 10.78	113 ± 5.473	2.731	<0.01	6.74
Throwing an object with a dominant hand (m)	6.597 ± 0.959	7.627 ± 0.573	3.185	<0.01	8.68
Smashing and catching the ball with two hands (l/ph)	16.51 ± 6.337	25.05 ± 3.278	2.995	<0.01	16.7
Balancing on one foot (gy)	10.38 ± 2.895	15.15 ± 3.022	2.676	<0.01	17.19
Seated forward bend (cm)	4.428 ± 2.488	6.613 ± 2.810	3.603	<0.01	39.58
	Trẻ gái (n=21)				
10m running (gy)	2.677 ± 0.133	2.581 ± 0.134	2.254	<0.05	3.61
Jumping in place (cm)	92.23 ± 6.169	97.29 ± 7.494	2.329	<0.05	5.34
Throwing an object with a dominant hand (m)	5.182 ± 0.526	5.636 ± 0.678	2.366	<0.05	8.39

Smashing and catching the ball with two hands (l/ph)	17.61 ± 2.918	20.92 ± 5.187	2.484	<0.05	17.16
Balancing on one foot (gy)	10.27 ± 3.710	13.31 ± 4.777	2.248	<0.05	25.77
Seated forward bend (cm)	3.612 ± 0.312	4.656 ± 1.813	2.284	<0.05	17.15

This is understandable, because of the gender differences, psychological characteristics of boys are stronger than girls and boys are physically better than girls so the growth of boys will be better than girls.

### Summary:

In conclusion, after 4 months of practicing the selected exercises, the experimental results of the boys and girls in the experimental group were better than those of the control group in all the categories, and the meaning of this difference is at threshold of  $P < 0.01$  and  $P < 0.05$  (girls); The number of overweight and obese children has decreased significantly. This proves that the selected basic exercises are very suitable for the physical development of preschoolers in Hanoi Vietnam.

### Conclusion:

1. The physical condition of kindergarten students compared to the target is still low and there are so many students who are overweight and obesity;
2. In order to develop the physical condition of students who are at preparatory classes, it is necessary to practice regularly 21 physical exercises, divided into 4 main types, including:
  - Exercises for improving walking skills: Walking in pairs; Walking with various direction and speed; Walking on the balance bridge, going up and down the slope and Long-distance walking;
  - Exercises for improving running skills: Running under the specific direction of signal; Running slow and walking; Running fast in 25m; Running in different direction and Running with high thigh;
  - Exercises for improving jumping skills: High jumping to touch the object hanging above; Jumping across a small lines/bars...; Jumping with different styles; Jumping with run and Skipping;
  - Exercises for improving throwing skills: Throwing the objects; Throwing the objects to hit the small targets; and Rolling the objects to hit the moveable and unmovable targets;
  - Exercises for improving climbing and crawling skills: Climbing the ladder; Climbing the slide; Crawling under the caves or obstacles; and Crawling backward.
3. The results of 4-month conducting exercises have shown that the selected basic physical exercises are accurate and effective. The physical condition of kindergarten students (5-6 years old) in Hanoi, Vietnam has improved significantly. The girls increased by 3.61% to 25.77%; while the boys increased from 6.74% to 39.58%.

**Recommendation:**

The results of the project are associated with the practical training of kindergarten schools in Hanoi. However, other kindergartens across the country can refer to these results and apply the basic physical exercises to develop the most suitable ones for their children (5-6 years old) in their cities.

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## **A Brief Comparison on the Mental and Physical Health of Regular Yoga Practitioners and Non-Practitioners**

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### **Abstract:**

Great wellbeing is a principal human right of each person. Yoga has consistently been considered to contribute a decent wellbeing. The present investigation endeavored to think about grown-up members (N=100, age: 18-35 years) involving 50 yoga specialists and 50 non-professionals from the local locations of Maharashtra state in India for their psychological and physical wellbeing status. World Health Organization personal satisfaction scale (WHOQOL) was directed to all members to discover status of different wellbeing aspects. Acquired information were blessed to receive single direction ANOVA measurements. Yoga practice professionals announced similarly solid rest, improved vitality level, and by and large broad wellbeing health. Examination of the scores uncovered the huge contrasts ( $F(1,98)=70.37$ ,  $p<.01$ ) between the yoga specialists and non-experts gatherings. Yoga practices' advantages were investigated over the nine features of mental and physical wellbeing. This examination unmistakably shows that yoga practice improves the psychological wellness of the individuals.

**Keyword:** Yoga-practitioners, Non-practitioners, Mental Health

### **Introduction:**

The idea of yoga has a long past yet short observational history. The word 'yoga' is gotten from Sanskrit language which intends to join together. Yoga speaks to the association of body and cognizance. It adjusts body and psyche, benefits the physical health and mental prosperity. Be that as it may, rehearsing yoga has stayed an intentional conduct instead of staying a basic part of people's exercises. The normal trust for yoga is related with its advantage for physical health. World Health Organization (WHO) portrayed human health not just the nonattendance of infection rather as a condition of complete physical, mental and social prosperity. There are various components of health and health to comprehend the essentialness of good health. Getting feelings and adapting to issues in regular daily existence is passionate health, though, intelligent health gives brain to new thoughts and ideas. Agreement with oneself as well as other people is seen in people with otherworldly health. To appreciate crafted by work and add to society is the characteristic of word related health. Playing out the social jobs viably without upsetting others is conceivable by people with social health. Physical health is depicted by the attributes, for example, having dependable choices about health, verifying medicinal consideration at whatever point required, safeguarding sound body by eating in suitable way, having exercise at ordinary, controlling unsafe propensities, and taking an interest in exercises to forestall the disease.

### **Mental Health:**

Mental Health can be characterized as a person's capacity to process the data suitably and perform intellectual capacities to secure a harmony between life exercises and endeavors

to accomplish mental strength. Yoga practice - The truth of the matter is that because of the transcending rate of science and innovation unpredictable and testing issues are being presented on the people. The human life is creating as comparable as mechanical frameworks and the objective of human satisfaction and health has gotten increasingly troublesome. In such situation establishments managing the hypothesis of yoga have come up to manage the new age issues. To understand the objective of human mental and physical health it needs the comprehension and practice of science just as training of yoga. In antiquated Indian writing yoga is depicted as complete concealment of every single mental procedure (cittavrittinirodha) by Patanjali, while yoga is characterized as absorptive focus (samadhi) by Vyasa. Yoga can be achieved by rehashed practice (abhyasa) and separation (vairagya). Discussing yoga is for the last fifty thousand years by extraordinary antiquated Rishis, Saints and Sages. The act of yoga isn't new, rather setting to distinguish its value is new.

### **Review of Literature:**

Healthy life is basic prerequisite to be profitable and upbeat. Mental just as physiological measurements on the whole contribute towards the improvement in health. Following writing survey bolsters a decent measure of research on significance of prosperity. Kumar and Kumar (2018) analyzed the impact of yogic activities on passionate knowledge of immature in a trial for 20 days with seven yoga practices consistently toward the beginning of the day. Yoga practices effectsly affected enthusiastic insight of understudies who were tried by Chadha's passionate knowledge test. Sharma et al. (2015) announced the impacts of sahaj yoga on burdensome issue. In pre-and post-study they found the sahaj yoga helping the patients in the board of burdensome issue and having the decrement in gloom and nervousness levels. Robinson et al. (2013) examined the impact of yoga practice on thoracic divider extension and lung volume among male stout university for a half year. The discoveries of the investigation portrayed the yoga based breathing activity most valuable program in improving the thoracic divider extension and lung volume among the male university. Telles, et al. (2012) examined the post horrible pressure manifestations and pulse inconstancy among the members following yoga. During the investigation yoga bunch was given one hour practice on everyday schedule while control bunch was recorded for routine exercises. On the first and eighth day of study pulse changeability, breath rate, and enthusiastic trouble were evaluated. The outcomes uncovered decrement in misery in yoga gathering and an uneasiness increase in the benchmark group.

### **Statement of the Problem:**

Health is expected a key human right everywhere throughout the world. Billions of individuals around the world are experiencing different mental maladies and ceaseless ailments. A considerable lot of the social orders or countries are extremely poor and can't give guiding consideration or medications in any event, for the most pervasive and ceaseless mental illnesses. Discouragement, stress, and so forth are further answerable for interminable dysfunctional behavior. Yoga is a type of activity which is expected to carry equalization and wellness to the physical, mental, and otherworldly size of an individual. On one side yoga is professed to improve the adaptability and limit of constitution and on the opposite side upgrade the psychological well-being. Yoga specialists and non-professionals exist in any general public with a lot of populace. The status of mental and physical health because of their yoga practice is the investigation issue of ebb and flow inquire about work. Yoga

improves the blood flow and animates the nerves, raising the skill of the inside organs. It decreases the stomach fat and improves the stomach related framework. Improved physical productivity additionally contributes straightforwardly or in a roundabout way to mental health. Different yoga practices create confidence, self-assurance, group abilities and social relations. Yogic activities are acknowledged to produce discipline, poise, supports social condition mindfulness and responsibility. In this manner, suppositions about commitment of yoga in emotional wellness should be examined. The present examination was an endeavor to conquer any hindrance on data about association between yoga practices and emotional wellness, particularly as of late of information period. Mental and physical health examination was seen among people rehearsing yoga and not rehearsing yoga with following objectives.

**Objectives:**

- To study the general health status of yoga practitioner and non-practitioners.
- To compare the mental health status of the yoga practitioner and non-practitioners.
- To compare the physical health status of the yoga practitioner and non-practitioners.
- To study the various mental and physical health facets among yoga practitioners and non-practitioners.

**Hypotheses:**

- There are significant differences between general health status of the yoga practitioner and non-practitioners.
- Yoga practitioners are significantly better for their mental health status than their counterparts, i.e., non-practitioners.
- Yoga practitioners are statistically better for physical health status than non-practitioners.
- Mental and Physical health facets of the yoga practitioners are significantly better in comparison to the non-practitioners.

**Research Methodology:**

The present examination followed the elucidating study technique and it depends on essential wellspring of information. The crisp data was gathered from logically chosen members by overseeing the institutionalized psychometric devices.

**Sampling:**

For the present examination, an example of early adulthood people (N=100, age: 18-35 years) was chosen haphazardly from the local locations in Maharashtra state in India. Out of 100 members, 50 were yoga specialists and staying 50 were non-experts. Yoga experts were distinguished distinctly out of those people who were rehearsing the yoga in any event for most recent one year.

**Tools:**

Thinking about the factors and targets of study, World Health Organization Quality of life Scale (WHOQOL) was directed to gather the data about mental and physical health status of the members. It covers six expansive areas of Quality of life having 24 aspects. Out of these six areas, two spaces (physical and mental health) are utilized with the end goal of present research to evaluate the psychological and physical health of the yoga specialists and

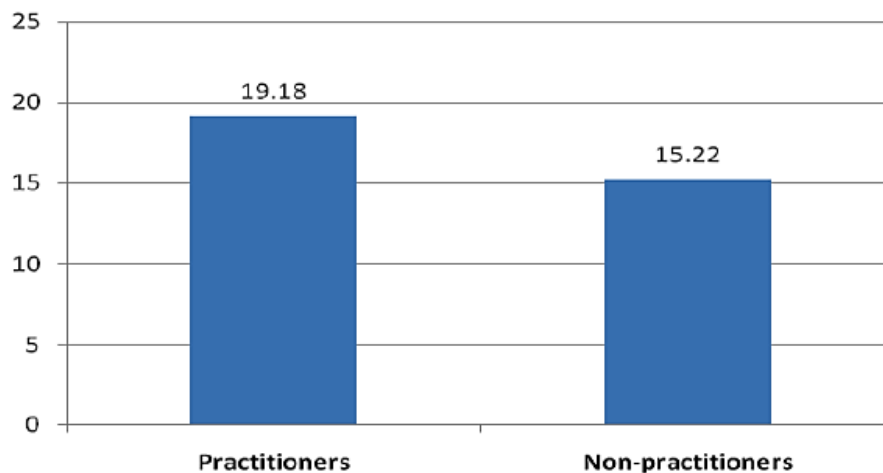
non-experts. Further, mental health space contains six features, i.e., positive emotions, thinking, learning, memory and focus; confidence, real picture and appearance; and negative sentiments. The physical health area has three aspects, i.e., agony and uneasiness; vitality and weakness; and rest and rest. Covering the power, limit, or recurrence there are reactions on five point scale (1 to 5). Space scores whole the feature scores.

### Results and Discussions:

The present investigation dissected the got information with enlightening measurements, Mean, SD and ANOVA to inspect the patterns of health among various gatherings. The outcomes are classified in Table 1 and plotted on Graph 1.

Yoga	N	Mean	SD	F value
Practitioners	50	19.18	1.63	70.37
Non-practitioners	50	15.22	2.90	
Total	100	17.20	3.07	
<b>(df=1, 98), p&lt;.01</b>				

**Table 1. Show the Comparison of Overall Quality of Life and General Health of Yoga-Practitioners and Non-Practitioners**



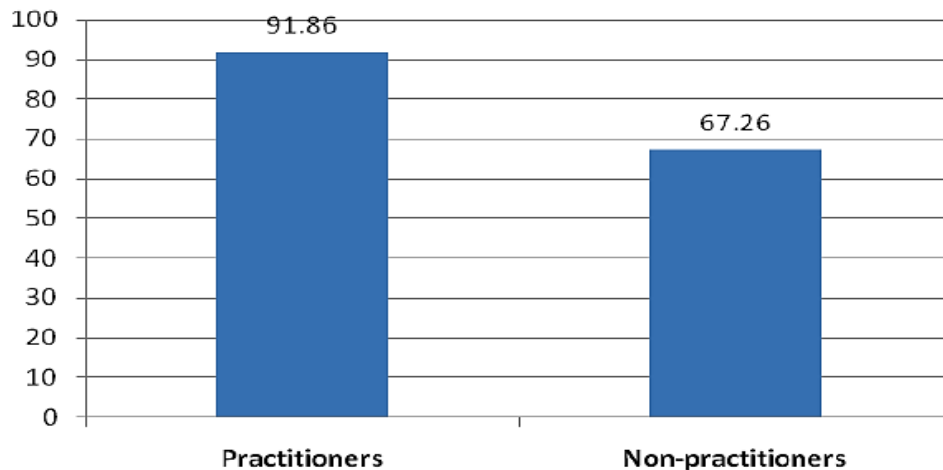
**Figure 1. Overall Quality of Life and General Health of Yoga-Practitioners and Non-Practitioners**

The reactions on WHO scale are broke down by applying ANOVA insights and it is seen from Table 1 that the two gatherings of Yoga experts and Non-professionals are measurably unique ( $F(1,98)=70.37$ ,  $p<.01$ ) for their general health viewpoints. The ebb and flow discoveries are in accordance with the consequences of prior research led by Giridharan and Radhakrishnan (2012). The yoga specialist bunch is better ( $M=19.18$ ,  $SD=1.63$ ) on general health measurement in contrast with the yoga non-expert gathering ( $M=15.22$ ,  $SD=2.90$ ). The primary speculation is held that there are critical contrasts between general health status of yoga specialists and non-experts.



Yoga	N	Mean	SD	F value
Practitioners	50	91.86	8.44	127.02
Non-practitioners	50	67.26	12.91	
Total	100	79.56	16.45	
<b>(df=1, 98), p&lt;.01</b>				

**Table 2. Comparison of Mental Health Status of the Yoga Practitioners and Non-Practitioners**

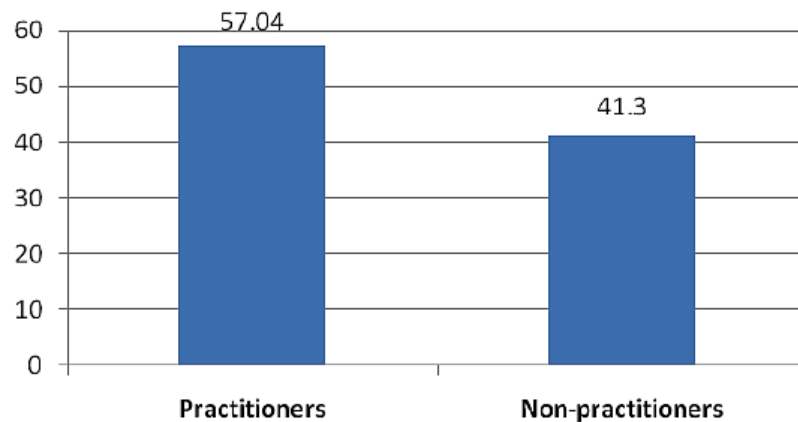


**Figure 2. Mental Health Status of the Yoga Practitioners and Non-Practitioners**

The reactions on WHO scale are broke down by applying ANOVA insights and it is seen from Table 2 that the two gatherings of Yoga professionals and Non-experts are measurably unique ( $F(1,98)=127.02, p<.01$ ) for their emotional wellness perspectives. The yoga specialist bunch is better ( $M=91.86, SD=8.44$ ) on psychological well-being measurement in contrast with the gathering rehearsing no yoga ( $M=67.26, SD=12.91$ ). Along these lines, second speculation is held therefore that there are huge contrasts between psychological wellness status of yoga professionals and non-specialists.

Yoga	N	Mean	SD	F value
Practitioners	50	57.04	4.81	129.96
Non-practitioners	50	41.30	8.49	
Total	100	49.17	10.47	
<b>(df=1, 98), p&lt;.01</b>				

**Table 3. Show the Comparison of Physical Health Status of the Yoga Practitioners and Non-Practitioners**



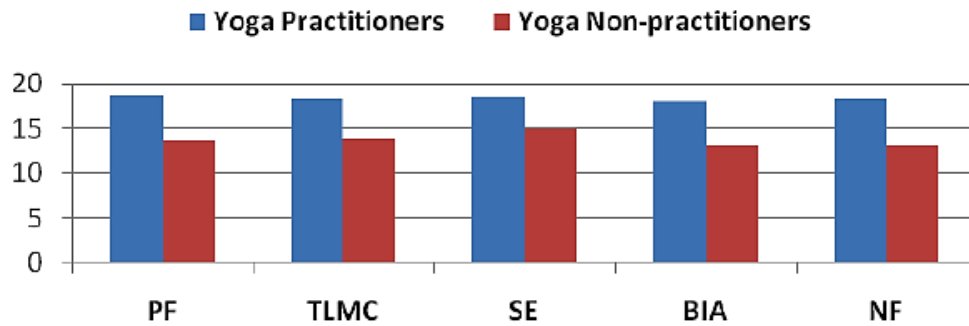
**Figure 3. Physical Health Status of the Yoga Practitioners and Non-Practitioners**

The reactions on WHO scale are examined by applying ANOVA insights and it is seen from Table 3 that the two gatherings of Yoga professionals and Non-experts are measurably unique ( $F(1,98)=129.96$ ,  $p<.01$ ) for their Physical health status. The yoga expert gathering is better ( $M=57.04$ ,  $SD=4.81$ ) on Physical health measurement in contrast with the gathering having no act of yoga ( $M=41.30$ ,  $SD=8.49$ ). Acquiring the above outcomes the third theory is held that there are noteworthy contrasts between physical health status of yoga specialists and non-professionals. The outcomes are shown in Figure 3.

Facets of Psychological (Mental) Health	Yoga Practitioners		Yoga Non-practitioners		F value	Mean difference
	Mean	SD	Mean	SD		
Positive Feelings	18.62	1.70	13.66	2.37	143.85	4.96
Thinking, Learning, Memory and Concentration	18.28	1.92	13.82	3.16	72.364	4.46
Self-esteem	18.50	2.04	14.88	3.39	41.81	3.62
Bodily Image and appearance	18.02	2.42	13.04	2.02	124.79	4.98
Negative feelings	18.44	2.14	13.06	3.72	78.519	5.38
<b>(df=1, 98), p&lt;.01</b>						

**Table 4. Mental health facets of the yoga practitioners and non-practitioners**

Table 4 shows that the mean distinction between estimations of the six aspects of psychological well-being, i.e., positive emotions; thinking, learning, memory and focus; confidence; substantial picture and appearance; and negative sentiments among yoga-experts and non-professionals are 4.96, 4.46, 3.62, 4.98 and 5.38, separately. Results demonstrated critical contrasts among all the six features of the psychological well-being space for yoga professionals and non-experts. The outcomes are exhibited in the Figure 4.



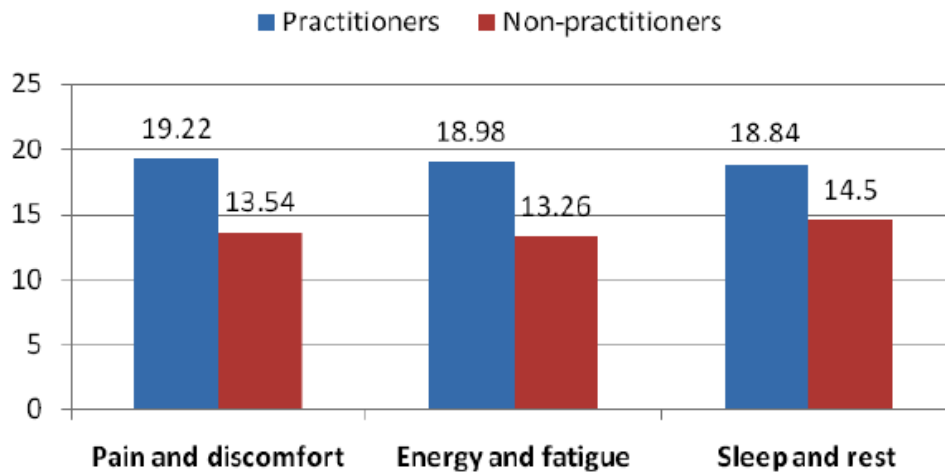
PF=positive feelings; TLMC= thinking, learning, memory and concentration; SE=self-esteem; BIA=bodily image and appearance; and NF=negative feelings

**Figure 4. Mental Health Facets of the Yoga Practitioners and Non-Practitioners**

Facets of Physical Health	Yoga Practitioners		Yoga Non-practitioners		F value	Mean Difference
	Mean	SD	Mean	SD		
Pain and discomfort	19.22	1.52	13.54	3.54	108.42	5.68
Energy and fatigue	18.98	1.72	13.26	2.87	146.11	5.27
Sleep and rest	18.84	2.40	14.50	4.26	39.26	4.34
<b>(df=1, 98), p&lt;.01</b>						

**Table 5. Show the Comparison of Physical Health Facets of the Yoga Practitioners and Non-Practitioners**

Table 5 shows that the mean distinction between estimations of the three features of physical health for example agony and uneasiness; vitality and weakness; and rest and rest among yoga-experts and non-professionals are 5.68, 5.27 and 4.34, individually. Gotten results demonstrated huge contrasts among all the three features of physical health area for yoga experts and non-professionals. The fourth speculation that psychological and Physical health features of the yoga experts are altogether better in contrast with the non-professionals is held. The mean estimations of three features of physical health, i.e., agony and distress; vitality and weakness; and rest and rest among yoga-professionals and non-specialists are appeared in the Figure 5.



**Figure 5. Physical Health Facets of the Yoga Practitioners and Non-Practitioners**

#### **Discussion:**

The aftereffects of the examination uncover huge contrasts between the emotional wellness status of yoga professionals and non-specialists. Yoga experts performed superior to non-professionals on the emotional well-being status. It is likewise presumed that the individuals who are rehearsing yoga are seen as better in the physical and mental aspects. Yoga asans help in discharge of the hormones like beta endorphin and encephalin giving alleviation from the anxiety to human body. Yoga assists with improving the fixation and fortify the intellectual elements of people. The verifiable truth is that today is the hour of performing various tasks in profoundly modern innovative workplaces, and for errorless execution people need preparing upgrading their continued consideration and fixation (Sharma, and Singh, 2014). Such circumstances are continually expanding requests on people. In the workplaces where people cooperate with untiring machines, yoga might be valuable. No hurtful impacts are related with yoga and it might be polished with center around unwinding of psyche and body to improve the presentation. It gives subjectively distinction and experience. Yoga has become a standard passage at health clubs and network entertainment programs known to mankind. One can get thinner and feel better through yoga as it restores the body. The present examination further uncovers that non-experts were not tantamount to yoga professionals on the physical health area. Yoga assists with improving personality body association. In particular, yoga helps the individual both improving the physical wellness and raising state of mind. Yoga considers all parts of advancement like physical, enthusiastic and mental. The primary advantage of the yoga rehearsing is to restore the body by evacuation of the poisons and improving the safe framework. Coghi and Dasilva (2018) assessed that the act of Hath Yoga eases low back agony emergency. Giridharan and Radhakrishnan (2015) yielded that physical preparing and yogic preparing are significant for individual with scholarly incapacity to expand their physical wellness parts. Additionally, in current occasions, complexities and requests in a wide range of workplaces are regularly expanding thus the degree of stress is likewise on higher side. In an ongoing report on college scholarly condition Sani and Sharma (2016) watched comparative more elevated levels of word related worry among male and female instructors. Along these lines, the significance of yoga rehearses is equivalent for male and female representatives, working in any occupation.

Kochupillai, et al. (2015) inspected musical breathing and exhibited a decrease in tobacco utilization. The act of yoga discipline hones the intensity of wisdom and leads towards understanding the genuine idea of the spirit which can't be completely grasp by the faculties or the keenness alone. The outcomes additionally demonstrate that yoga professionals are better in the general personal satisfaction and general health than non-experts. The present outcomes are bolstered by the finding of concentrate by Telles et al. (2010) who inspected and detailed the decrement in pity of yoga gathering and an addition in uneasiness of the benchmark group. Sharma et al. (2015) announced the impacts of sahaj yoga and discovered decrease in discouragement and nervousness levels of the patients. Javnbakht et al. (2018) assessed that who took an interest in yoga classes indicated a low uneasiness contrasted with their partners. The discoveries of the present investigation are at standard with the writing that yoga rehearses fundamentally improve the psychological wellness of people.

### **Conclusions:**

For verifying the great health people are persistently cognizant. Not with standing the old time, as of late there is expanded talk on yoga and its practices not just in India fairly everywhere throughout the world. Exceptionally, the exertion of United Nations Organization to proclaim the worldwide yoga day on 21st June of consistently is critical towards mindfulness for advantages of yoga to verify great health of humanity (UNO, 2015). Each legislature over the globe is attempting to build up a customary propensity to rehearse yoga on regular routine by their residents. Indian government additionally commends the yoga day at national level with full energy to include the resident of all age gatherings. Presently individuals of the nation begin to acknowledge yoga as a basic and conceivable approach to have great health. Based on discoveries of present investigation following significant ends are drawn.

Rehearsing the yoga benefits general health. Emotional wellness is predominant among people who practice yoga than the individuals who don't rehearse yoga. Further, great physical health status is related with yoga as yoga professionals were found having better physical health. Yoga is connected to supportable advancement through great health. Yoga is an antiquated Indian science to improve physical, mental, social and profound health. The impacts of yoga practices can be considered on enormous arrangement of health measurements and as for various segment qualities of the members. Normal act of yoga helps up the psychological and physical health notwithstanding the avoidance of loss of invulnerable framework. There are various kinds of yoga practices connected to explicit advantages towards specific sicknesses and advantages to mental and physical health. This investigation suggests further exact approval of such advantages to mental and physical health by yoga rehearses.

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## **Influence of Socio-Economic Status on Achievement Motivation of Sports Women**

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### **Abstract:**

Sports is based on close relationship of physical, psychological and sociological aspects of human development. In the domains of social life, the social structure, traditional and newly emerging values do have social consequences and effect on its members. The impact of widespread social distinction between classes, ethnic groups and sex has been constantly reflecting the changing scope of sport. Mean, SD and t value were calculated to find the difference.

**Keywords:** Socio economic status scale, achievement motivation scale and sports women

### **Introduction:**

Sport may be one area where the appearance of equality is more cosmetic than reality. Sport remains highly associated with the so-called “masculine” element of our culture, and the female in sport is still considered a woman in man’s territory. Thus, the female athlete is especial case in two senses. Because of her sport interests, she is considered a special kind of female; because she is female she is considered a special kind of athlete. Awareness of her exceptional status surely colors the female athlete’s approach to sport and makes her sport experience qualitatively different from that of the male athlete. The female athlete’s special status raises significant questions about the psychological dimensions of her sport involvement. While the western world has progressed in the area of equality, in most third world countries including India, it remains a long way off. Therefore, the present chapter deals with the history, participation, position and performance of sportswomen in India.

### **A Global View:**

Even at the turn of the present century, sportswoman is looked upon as a very special case in two aspects; first, on account of her interest and involvement in sport, she is looked upon as a special kind of woman; and second, she being a woman, a special kind of athlete. However, before making any attempt to understand women and sport as of today, it is logical to trace back the roots of sporting heritage, which supported the rise of modern sport for women. It may also help us to recognize pattern of development and identify the cultural determinants, which influenced sport and reflected society.

The rise of modern sport coincides with the rise of industrial capitalism. By the 19th Century, sport was seen as a safety valve and developed as a means of inculcating the right attitude for the ruling class. But women still had no role to play; rather even watching of sport was discouraged. By the end of 19th Century physical education and gymnastics became essential components of girl’s education programmes, and ideal of womanhood from the pale beauty of 18th century changed into the beauty of “perfect health and high spirit”. By the beginning of 20th Century, women’s participation in sport was reckoned to be a mark of their “real emancipation”. Ironically, despite the giant step, Perre de Coubertin, while reviving the



Olympic Games, defined, “Women have but one task that of crowning the winners with garlands”. Women’s sport in 20th century gained a new image only after the First World War, since women took to many jobs, which earlier were only performed by men. This brought about the change and awareness in the society about the physical capabilities of women and the need for strength and confidence among them.

Recently, the International Amateur Athletics Association carried out a survey in the sport of track and field athletics, the results of which are almost certainly reflected in other sports throughout the world. Very few countries make real attempts to offer post-school girls the opportunity to participate in sport at any level approaching that which is offered to men, indeed the majority of men participating in the survey did not offer any comprehensive recruitment plan for women. Competitive sports for women were introduced in Olympics as early as 1912. The second boon in women sport came after the Second World War, whereby performance of women was full in competitive sport. All through the sport history, official sports bodies have been putting performance of women was full in competitive sport. All through the sport history, official sports bodies have been putting all kinds of restrictions on women while universalizing and regulating norms for sport. Until 1971 IOC did not have a single woman as its executive member. Today, its executive members include both men and women. Until the sixties, there were few major changes in the world of sport concerning women. Women continued to make impact, break records, but did not make major gains.

#### **Socio-Economic Status:**

The socio-economic status is very important concept being employed frequently in day to day matters nonetheless its determination is very complex and complicated difference tests envisage its determination with weight age on one of the many factors that go to constitute its integrity. Status by term we mean that, recognition given to an individual by his group relation. Socio-Economic status (SES) is one of the key factors, which has been studied extensively in behavioral science research. It has been observed that SES as an independent variable has a greater impact on dependent variable performance of an individual. Behavioural components have greater bearing on socio-economic conditions of the individual. It has been conclusively proved that SES is one of the main correlates of behavioral component.

#### **Achievement Motivation:**

Motivation is viewed as an intervening variable believed to cause behavior. Neither seen nor touched the motivational variables are simply inferred on the basis of observable behavior. Therefore, motivation might be considered as a process by which the individual is inspired, goaded or coaxed to do something. To motivate is to induce movement. As abroad based term, motivation encompasses numerous aspects of behavior, individual and collective. It might be designated as the tendency for the direction and selectivity of behavior to be controlled by the conditions to the consequences, and the tendency of this behavior to persist until a goal is achieved.

#### **Methodology:**

In the review, the researcher has presented a resume of all the studies conducted in the psychology of sport in general, socioeconomic status (SES) on achievement motivation. It is apparent that although a number of studies are available both in the field of socio-economic

status (SES) and achievement motivation but there is no integrated picture of socio-economic status and its impact on the personality dimension of sportsmen. The complex relation between sociological factors like SES and psychological factors of sportsmen like achievement motivation would never be understood, until they are presented simultaneously. At the same time it also became clear that what is needed is a comprehensive picture of the relationship between socio-economic status and its impact on achievement motivation of sportswomen. It was felt necessary to find out the impact of socio-economic status (SES) on personality, adjustment and achievement motivation of sportswomen.

**Statement of the Problem:**

Social conditions in which an individual is interacting and transacting provide the framework for internalizing the values, modes, practices and procedures of the given conditions. In the process, the social experiences, orientation and learning accordingly help to a large extent develop socially adequate personality traits (Nangia, Suman, 1991). Sports environment also belongs to this category. Sports persons through their participation in games get an opportunity to take in new learning, new experiences and orientation which pave for them a way for developing an adequate and desirable personality trait. The socio-economic backgrounds of the players together have significant repercussions on their development of desirable and adequate traits like achievement motivation. Considering this rationale, the present study undertakes a rare and distinctive task to examine the impact of the socioeconomic status on achievement motivation of the sportswomen.

**Objectives of the Study:**

1. To understand the impact and influence of SES on achievement motivation of sportswomen.

**The Variables:**

1. The socioeconomic status is an independent variable
2. The dependent variables - Achievement Motivation

**Hypothesis of the Study:**

1. There is significant influence of SES on Achievement Motivation of Sportswomen.

**Methodology:**

The present investigation pertaining to 'The Influence of Socioeconomic Status on Achievement Motivation Sportswomen' is in the framework of ex-post-facto research. The particulars of samples, tools, collection of data and statistical techniques are given as under;

**Sample:**

The total sample consists of 40 sportswomen belonging to high and low socioeconomic status. The age level ranging from 19-25 and were selected randomly. The sample design is given below:

**Sample Design:**

Sl. No	Sportswomen with High Socioeconomic Status	Sportswomen with Low Socioeconomic Status	Total
1	20	20	40

**Tools:**

1. Personal data schedule was used to collect the information related to personal and socio-demographic status of the subject.
2. The socio-economic status scale developed by Bharadwajand Chavan (1989).
3. The Achievement Motivation Test developed by Dr. Beena Shah.

**Discussions:**

Basic division in human societies can readily be observed among members. Some of the variations like race or sex are biological, while others, such as occupation distinctions or gradations in prestige and power, are primarily social products. In both cases, the differences provide the foundation for discrete social positioning and the creation of specific roles in the organization of human affairs. This analysis points to further study of social differentiation and its effects. Like all areas of social life, Sport has been greatly influenced by the institutionalized divisions and inequalities that serve to differentiate societies.

Recent sports technology is based on close relationship of physical, psychological and sociological aspects of human development. In the domains of social life, the social structure, traditional and newly emerging values do have social consequences and effect on its members. The impacts of widespread social distinctions between classes, ethnic groups and sex have been constantly reflecting the changing scope of sport. A great variation has also been observed in the achievement skills performed individually when compared with performance of the same individuals in team situations. Studies also indicate that sports performance does not only depend upon skills but also on the personal factors developed through social institutions of which an individual is chiefly product. Perhaps the influence of any such specific reference group is a reflection of social structure variables and hence accounts for various socio-psychological factors affecting the choice of sports and performance.

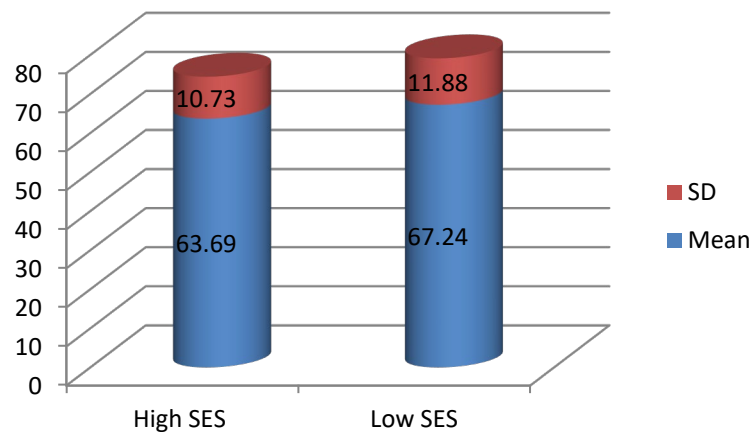
**Table 1. Mean, SD and t values of achievement motivation of high and low SES Sportswomen**

Variables	High SES	Low SES
Mean	63.69	67.24
SD	10.73	11.88
t value	2.74*	

Significant at 0.05 level

The Table presents the mean, SD and t values of achievement motivation of high and low SES sportswomen. The high SES sportswomen have the mean score of 63.69 whereas the lowSES sportswomen have the mean score of 67.24. It suggests that the low SES

sportswomen have more achievement motivation than the high SES achievement motivation. The obtained t value is 2.74 which is significant at 0.05 level indicates that there is a significant difference between achievement motivations of high and low SES sportswomen. In the above table, the low SES sportswomen have the higher achievement motivation, which could have been a resultant of their strong desire to win and succeed. The fear and humiliations associated with failure, the urge to grow and develop might have influenced them to adopt the higher achievement motivation. On the contrary, the high SES sportswomen might have become complacent due to their higher standard of living, higher income, and secured environment. Thus, it becomes clear that the hypothesis mentioning of the high SES sportswomen having the high achievement motivation than the low SES sportswomen is not accepted.



### Summary:

The participation of women in modern sports is influenced by various physical, physiological, sociological and psychological factors. During training, besides good physique and physical fitness of the athlete, main emphasis is laid on the development of various types of skills involved in the game as well as on teaching the strategies, techniques and tactics of the game. Until recently, the coaches have been paying inadequate attention to the social and psychological factors which although have been proved to contribute to performance in events in the higher competitive sports. It is in this context that the present study aimed to probe the impact of SES on adjustment, achievement motivation and personality of sportswomen.

### Conclusion:

The low SES sportswomen have high achievement motivation than the high SES sportswomen and there is a significant difference in their achievement motivation level.

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