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## Comparative study of selected motor fitness between women fencers and Thang ta players of Manipur

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### Abstract

**Objective:** Yet Manipur has been known as powerhouse of sports however study relating to sports and physical activity are least exploited. Hence, our study aims to bring out the differences in the selected motor fitness components (Leg power, Upper body strength and Speed endurance) between women Fencers and Thang Ta players of Manipur

**Materials and Method:** For the study a total 30 female players, 15 each for Fencing and Thang Ta, with age ranging from 18 to 25 years were randomly selected. The JCR test was used to measure the leg power, upper body strength and Speed endurance respectively. The data was analyze using IBM SPSS Statistic Software Version 20.

**Conclusion:** No Significant difference was observed between the selected motor fitness of the Fencers and Thang Ta players.

**Keywords:** JCR test, leg power, motor fitness, speed endurance, upper body strength

### 1. Introduction

The idea of sports involvement varies with individuals. Some play sports for recreation, some for professionalism and some for health and fitness etc. <sup>[1]</sup> The recent escalating demand of physical fitness has brought a new faces in sports and physical education. To certainly implement and exercise the goal of physical activity, one needs the better understanding of body movement and its corresponding training. Through customize and individualize training one can assure optimization of sports performances.

Motor fitness reflects the athletic ability to execute successful movements during a games or sports. It may be manifested in terms of speed, strength, endurance, agility, power, co-ordination, reaction time and flexibility <sup>[2]</sup>. Trainings varies according to the different fitness parameters, so it becomes necessary to measure performance and trained as per individual need to optimize the athlete's performance.

Thang Ta is the ancient Manipuri Martial Art also known as Huyen Lallong. Being an independent kingdom before the Christian era. The art serve as a purposes to protect and saves from constantly arising dispute and conflicts from internal kingdom, hostile neighbors and also to maintain a social order <sup>[3]</sup>. It is just more than physical load. It also involves breathing technique meditation and certain rituals. Huyel Lallong has two different elements, one is Thang Ta and another being Sarit sarak. Chainarol Puya can explained the ancestral line of swordsmanship and the ethics of fight <sup>[4]</sup>.

Fencing traces its roots from Spain supported by books, Treatise on Arms by Diego De Valera, A manual book on fencing. Modern Fencing emerge in 18<sup>th</sup> century giving birth to three different schools of fencing as Italian school, French School as influence from Italian school and Spanish school in 19 century. Fencing has three different swords: foil, epee, sabre and different sword have different rules to fences. It was first sport played on Olympic based on traditional skill of swordsmanship <sup>[5]</sup>.

From customary and social view, the bold participation of woman in physical activity and sports was generally mismatched. With the increases in numbers of crime against woman such as rape, molestatation, domestic violence etc, women too need mastering and learning certain self defense sports.

Learning such skill and games will enable woman to fight against various atrocities and ascertain their social rights [6].

Thus, With the very limited numbers of study on women sports in Manipur, researcher intended to study on Differences of selected motor fitness components among women Fencers and Thang Ta players of Manipur.

**2. Methodology**

**2.1 Subjects**

Total 30 female subjects were randomly selected for this study. 15 Fencers and 15 Thang Ta players of age group 18-25 years and are regularly practicing.

**2.2 Variables**

1. Power (Leg power)
2. Muscular Strength(Upper body strength)
3. Speed Endurance

**2.3 Tests:** JCR test was used to measure the variables

1. Vertical Jump: Leg power
2. Chin Up : Upper body Strength
3. Shuttle Run: Speed Endurance

**2.4 Data collection**

Data were collected in the month of July 2019 when they were attending their regular classes. Necessary instruction was given to the subject before administration of test. Data were collected during morning training session. JCR test was used to measure the leg power, upper body strength and speed endurance. Vertical jump measure the leg power and the best of three attempts is recorded in inches. Chin up measures the upper body muscular strength, the total number of correctly pulls up is recorded. 100 yard shuttle run test measures the speed endurance, the total time completed is recorded in seconds

**2.5 Tools and Technique**

1. Vertical Jump: Measuring Tape, wall marker
2. Chin Up: Horizontal overhead bar.
3. Shuttle run: stop watch, measuring tape ,marker cones

**2.6 Statistical Method**

1. To obtain data were analyze by applying independent “t” test in order to determine the differences in speed and flexibility.
2. The level of significance was set up at 0.05.
3. The data was analyzing using IBM SPSS Statistic Software Version 20

**3. Results**

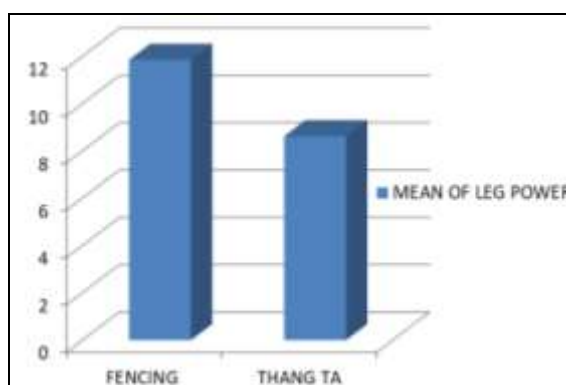
The mean of leg power and standard deviation of Fencers and Thang Ta were 11.85±3.75 and 8.62±5.01 respectively. The mean upper body strength of Fencers and Thang Ta were 3.93 ±.961 and 3.67±1.11 respectively. The mean speed endurance of Fencers and Thang Ta were 27.23 ±1.83 and 29.27±3.67 respectively.

As shown in the table1, the mean leg power of Fencers is greater than Thang Ta players i.e. 11.85>8.62 .The test for significance, by ‘t’ test reveal that tabulated ‘t’ is 1.99 which is lesser than 2.048 at 0.05 level of significance. Thus no significant difference is obtained,

**Table 1:** Comparison of Means of Leg power between women Fencers and Thang Ta players of Manipur.

Group	Mean	SD	MD	SEM	‘t: value
Fencing	11.85	3.75	3.23	1.62	1.99*
Thang TA	8.62	5.01			

■ No Statistically significant at 0.05 level where t<sub>05(28)</sub>=2.048



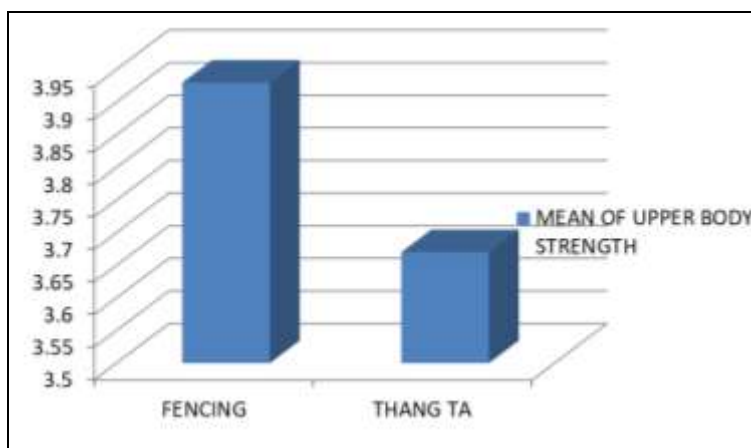
**Fig 1:** Mean difference of leg power between women Fencers and Thang Ta players of Manipur

As shown in the table2, the mean upper body strength of Fencers is greater than Thang Ta players i.e.3.93>3.67 .The test for significance, by ‘t’ test reveal that tabulated ‘t’ is 0.702 which is lesser than 2.048 at 0.05 level of significance . Thus no significant difference is obtained,

**Table 2:** Comparison of Means of Upper body strength between women Fencers and Thang Ta players of Manipur.

Group	Mean	SD	MD	SEM	‘t: value
Fencing	3.93	.961	.267	.380	0.702*
Thang TA	3.67	1.11			

No Statistically significant at 0.05 level where t<sub>05(28)</sub>=2.048



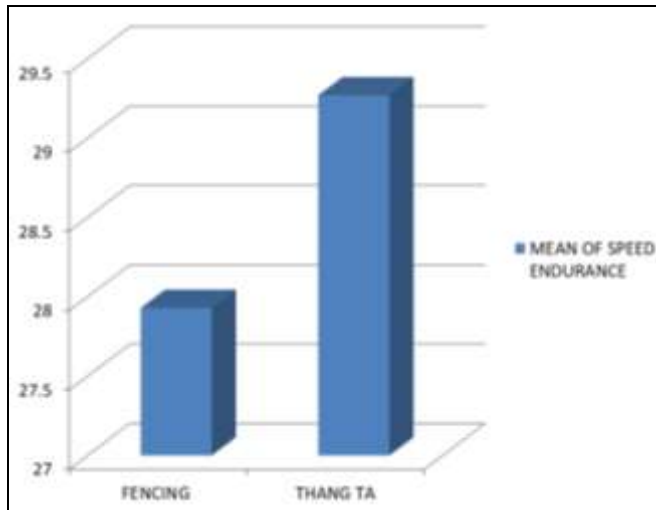
**Fig 2:** Mean Difference of upper body strength between women Fencers and Thang ta Players of Manipur

As shown in the table3, the mean speed endurance of Thang Ta players is greater than Fencers i.e.29.27>27.23 .The test for significance, by 't' test reveal that tabulated 't' is 1.92 which is lesser than 2.048 at 0.05 level of significance . Thus no significant difference is obtained.

**Table 3:** Comparison of Means of speed endurance between women Fencers and Thang Ta players of Manipur.

Group	Mean	SD	MD	SEM	't: value
Fencing	27.23	1.83	2.04	1.06	1.92*
Thang TA	29.27	3.67			

No Statistically significant at 0.05 level where  $t_{05}(28)=2.048$



**Fig 3:** Mean Difference of speed endurance between women Fencers and Thang ta Players of Manipur

#### 4. Discussions and Findings

These studies reveal not significant differences at all three variables selected. However, Fencers have performed better in Leg power and upper body strength than Thang Ta players while Thang Ta players performed efficiently better than Fencers in Speed Endurance. Studies of female fencers and Thang Ta players could be rarely seen in regional (Manipur) context. It also can be hardly seen on Indian context too. Study by Chatterjee *et al.* [6] found that girls practicing (martial arts) karate regularly observe significantly higher physical fitness profiles than sedentary girls. Since whole body movement was involve imartial can invariably improves the strength and endurance [7]. Akpinar *et al* [8] found that Fencers have better reaction time and accuracy than non fencers, so participating and training in sports requiring accurate movements can improves our perception and motor performances. Various study supported that upon training and participation in sports increases the motor fitness performances. The non-significant differences observe between Fencers and Thang Ta players in Leg Power, Upper body Strength and speed endurance may be due to similarity in training nature and tactics. The continuous attacking and defense technique, footsteps and body movements somehow similar in both the sport. The dietary habits may also contributes in the results obtained.

#### 5. Conclusions

The researcher compares the selected motor fitness components between women Fencers and Thang Ta players of Manipur. On basis of study and its finding, there was no significant differences found in the selected motor fitness components between women Fencers and Thang Ta players of

Manipur. The Fencers has more leg power and upper body strength while Thang Ta players have more speed endurance however the result is not significant statistically. Therefore, base on finding we accept the null hypothesis.

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