ISSN (Online) 2456 -1304

International Journal of Science, Engineering and Management (IJSEM)
Vol 6, Issue 7, July 2021

Age Level of Participation and Performance among Thang-Ta Players of Imphal, Manipur

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***Abstract:* - Manipur is a tiny state in India situated in the North-Eastern part of India bordering Myanmar. It was an independent country prior to the Anglo Manipur war in 1891. It was nicknamed as "valley of Manipur", "Jewel on the Earth" and "Flower on lofty heights" by many authors due to its extreme beauty and isolated location. It is one of the oldest civilizations in this part of the world and has been constantly at war with many of its neighbours. So, the skills of swordsmanship and use of spear were of highest order. Though the origin of Thang (Sword) and Ta (Spear) is merged with mythology, scientific investigations have given evidence of a very early use of iron in Manipur. Sheikh (2017) examined the iron slags available in Kakching (Manipur) through TL technique and it was found that they are more than 1600±80 years old and it was evidence of a very early use of iron, perhaps the oldest use of iron in these parts of the world. As such it was quite natural that the Manipuris had a highly developed skill of Thang-Ta and also it had a close link with the culture and the dances of Manipur (Rishikesh, 2008). Indu Devi (2016) observed that the Manipuri Dances both folk and classical had its origin in Thang-Ta. The cultural links, war practices and war games gave rise to many martial arts and indigenous games and it is regarded as one of the reasons for Manipur for being so rich in games and sports often taunted as powerhouse of sports.**

Introduction

The Thang-Ta is one such martial art. When Thang and Ta are used as combined term as Thang-Ta, it denotes the name of martial art which originated from Manipur. From war practices during the kings, it has developed in to a fine martial arts and it has become a popular sports in Manipur and India. The World Martial Arts Union (WoMAU) has recognised the Thang-Ta as Martial arts. Already, the state association and national federations have been formed. It is an emerging sports discipline and it is at the threshold of becoming a world sports. It is now listed as a martial arts in the encyclopaedia of the martial arts of the world (Green, 2001). The federation has already framed the rules of this martial art as a game.

Different sports have different peak period of age depending on the oxygen demand muscular requirement and above all the skill requirement. This has a relationship with the number of years of practice and at what age the player is initiated in to the game. The social factor of age plays a big role when played at competitive and non-competitive level. The Thang-Ta players in Manipur fall in to a wide cross section of age limits. Though for many games, the age of thirty is regarded as limit for competitive sports, in Manipur Thang-Ta is played at an early age. Review of literatures shows in football, little studies have been done on the peak age of a footballer, but the average age of champions league players has been found to be 26.5 years and for tennis, the average age of top 100 players during last decade has been found to be 27.9 years (Peñas). Another study found that men have a harder time balancing the older they get, starting at age 25. Balance depends on the coordination of three main systems in the body: visual, vestibular, and somatosensory systems (Vinopal) for which age is an important factor. According to a study made on the swimmers of various age groups in master swimmers in USA, it has been found that the decline in performance with increasing age was found to be quadratic rather than linear (Bongard). For the peak age of performance in long distance running a study was done on marathon runners (based on Berlin Marathon) and found that APP was 32 years in women and 34 years in men using 1-year age groups, and 30-34 years in women and 35–39 years in men using 5-year age groups (Pantelis, et al.). The speed with which the athlete reacts is a combination of their ability to recognize the required response, the choices available to them, the type of reaction required, practice in responding to this situation, fatigue, and the age of the athlete. In addition to the generalized impact that age presents on injury and the body's ability to recover, age is a significant reducing factor in the assessment of reaction time in athlete (Encyclopaedia). When the effect of Age is studied up to micro level, it has been noticed that the relative age effect (RAE) exists even within the same age group (Tayara, 2020).

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The martial art of Thang-Ta is a new entrant in the field of physical education and sports science and it would require a series of studies to find out the right type of management, coaching and improvement intervention and age is one of the factors which have profound impact on a player's level of performance. The attainment of sports expertise has been of great interest to coaches and sport psychologists. Talented athletes are identified from a young age and enter programmes to help them develop into elite athletes. A range of factors may influence a coach's judgement on the potential of an athlete, whether it's physical, technical or mental qualities. There has not been much study done in Thang-Ta as a sports discipline in Manipur or elsewhere. A study was made on the historical aspects of this game by researcher Kokngang (2000) and according to his findings; the game of Thang-Ta is an indigenous game of the state of Manipur. Meitei and Devi (2020) carried out a SWOT analysis for strategic management of the new sports.

In modern days, the martial art of Thang-Ta has become a popular sport under the great efforts and sole responsibility of various institutions at state, national and international levels. However, so far with due literature sources, no one has been carried out any research based on age, participation and performance level among the Thang-Ta players in Manipur.

2. Objective

The objective of the study was to find out the significant differences and relationship among the age groups, participation and performance level of Thang-Ta players of Imphal district.

3. Methodology

The present study was conducted on 39 male Thang-Ta players within age range of 20-28 years belonging to 7 Organisations/Institutions of Imphal District of Manipur. The seven Organisations/Institutions are affiliated to Huyel Langlon Thang-Ta Association (HLTTA), Manipur that is an affiliated body of the Thang-Ta Federation of India. The players who volunteered to participate in the study were selected purposively (non-probability sampling). As there were limited number of players within the designed age range and all the willing candidates were taken for the study, the element of bias was ruled out and high possibility of generalising the findings were maintained.

The data on the date of birth or the age in years of the players were collected through the official records of the clubs. The purpose of the data collection was clearly made understood to the players. For the level of participation of the players, it was based on the performance in the state, national and international level tournaments with scores of 4, 3 and 1 for state level tournaments, and 5, 4 and 2 for national and international tournaments for winner, runner and participation respectively in such tournaments. The tournament records of State, National and International levels were maintained by Huyel Langlon Thang-Ta Association (HLTTA) based on the performance of the players awarding the respective scores.

4. Finding

Data analysis of data was carried out by using the IBM-SPSS software. The descriptive measures, one-way analysis of variance (ANOVA) and Pearson correlation coefficient statistical tools were employed. The skewness values for age and performance score was found to be in the range of -1 to +1 and the data were assumed normally distributed. The level significant was set at 0.05, where P-value of <0.05 is considered significant.

The descriptive analysis of age and performance level has been shown in the table 1.

Table 1: Descriptive Statistical Measures of age and Level of performance Score of 39 subjects.

Descriptive Statistical measures			
		Age (yr)	Total Score of performance levels
N	Valid	39	39
	Missing	0	0
Mean		22.36	4.41
Std. Error of Mean		0.323	0.593
Median		22.00	3.00
Std. Deviation		2.019	3.704
Variance		4.078	13.722
Minimum		20	0
Maximum		27	13
Skewness		0.651	0.905
Std. Error of Skewness		0.378	0.378

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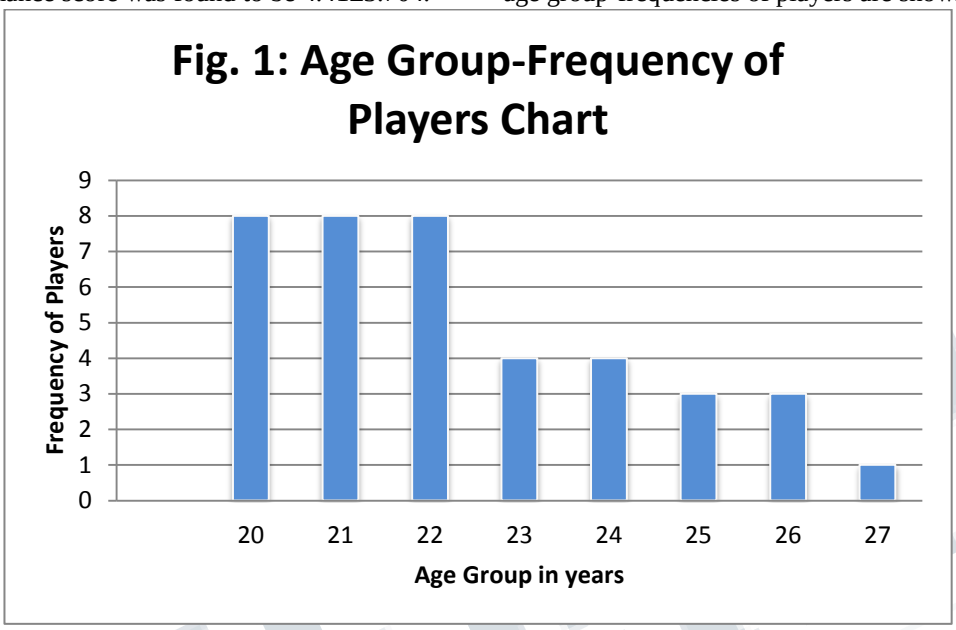
The mean age of participants was found to be 22.36±2.019 and the mean performance score was found to be 4.41±3.704. Though the designed age range of the samples was 20-28 years, there was no sample falling in 28th year of age. The age group-frequencies of players are shown in figure 1.



The players take up practice of the martial art of Thang-Ta at an early age and by the time they reach 20 years of age, the turn out are good. They are in good numbers for the initial years. The mean performance scores of different age group players have been shown in table 2.

Table 2: Mean Performance Score of Different Age Group Players

Age Group	N	Mean	SD	SE	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
20	8	2.88	2.167	.766	1.06	4.69	1	7
21	8	4.75	4.200	1.485	1.24	8.26	0	12
22	8	8.63	3.583	1.267	5.63	11.62	3	13
23	4	2.25	2.630	1.315	-1.93	6.43	0	5
24	4	3.75	3.096	1.548	-1.18	8.68	1	8
25	3	3.00	2.646	1.528	-3.57	9.57	1	6
26	3	2.67	1.155	.667	-.20	5.54	2	4
27	1	1.00	.	.	.	.	1	1

Table 2 reveals that the mean scores of level of participation showed definite pattern of performance starting at low level 2.88±2.167 at initial stage of 20th year of age, which increased to 8.63±3.58 at 22nd year of age and then gradually declined to mean score of 1.00±0 at 27th year of age. Therefore, for the martial art of Thang-Ta, the mean age of all the players falls at 22.36 years of age and mean maximum level of performance also falls at 22 years of age. Hence, there is a strong likelihood of 22-23 years of age being the age of peak performance of Thang-Ta players. The comparison of age-group means performances of Thang-Ta players have been shown in figure 2.

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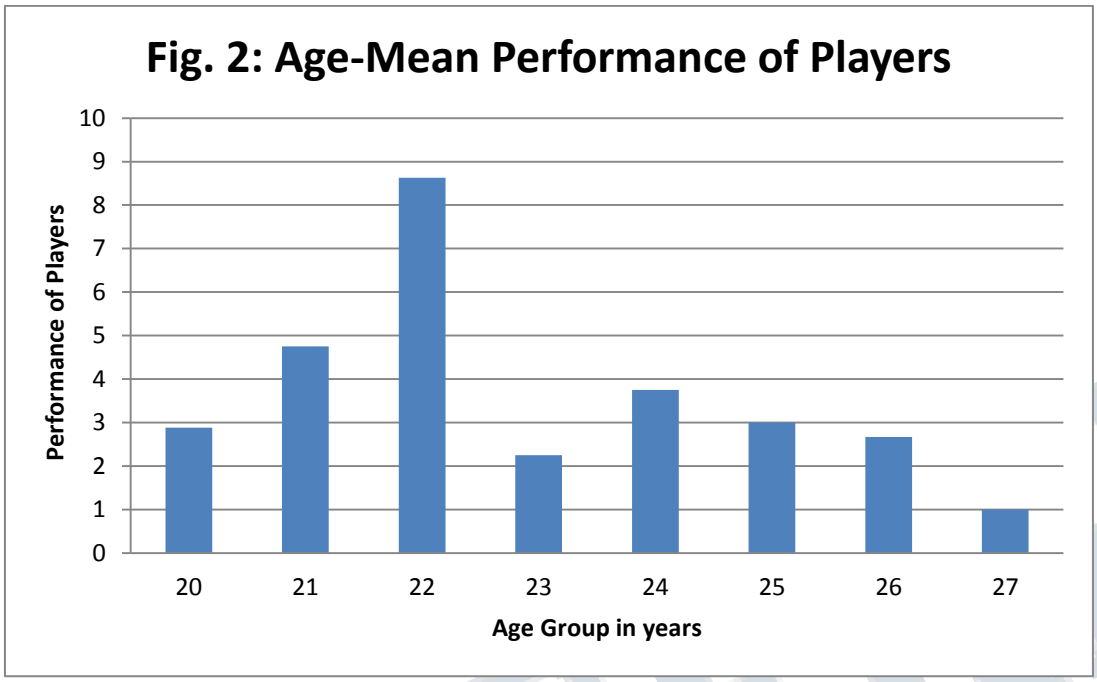

The significant means comparison among the level of participation scores of different age groups is shown in table 3.

Table 3: Means Comparison among the level of Participation Scores of Different Age Groups

Total Score of Performance levels					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	209.019	7	29.860	2.963*	.017
Within Groups	312.417	31	10.078		
Total	521.436	38			

**Significant at .05 level of confidence; $F_{(7, 31)} = 2.32$*

The above table 3 shows that the F- value = 2.963 and P value=0.017 (P<0.05) and is found to be higher than the critical F-value = 2.32 at 0.05 level of confidence. Therefore, there were the significant means differences among the performance scores of different age groups. The result is mainly due to 22 years age group participants having significantly high performance score (8.63±3.583) compared to the rest of the age groups.

It appeared that age would have a strong relationship with the participation frequency of players. The participation of players in sports and physical activity differs with age of a person. Therefore, the Pearson's correlation was worked out for the Age Group and Frequency of players.

Table 4: Pearson's Correlation between Age Group and Frequency of Players

Correlations			
		Age Group	Frequency
Age Group	Pearson Correlation	1	-0.944**
	Sig. (2-tailed)		0.000
	N	8	8
Frequency	Pearson Correlation	-0.944**	1
	Sig. (2-tailed)	0.000	
	N	8	8
**Correlation is significant at the 0.01 level (2-tailed).			

In Thang-Ta, the younger age group comes out in good number. The martial art is in the school level curriculum up to class xii standard and its impact would be there in the number of participants among youths. So, in the lower age group of 20, 21 and 22 years, the combined frequency is up to 62%, the number decreasing as the age

ISSN (Online) 2456 -1304

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increases up to 27th year. The 'r' value of (-) 0.944 showed a strong relationship between age group and frequency with a very highly significant p-value of 0.000.

Table 5: Pearson's Correlation between Age Group and Participation Level Score

Correlations			
		Total Score of participation levels	Age group
Total Score of participation levels	Pearson Correlation	1	-0.341*
	Sig. (2-tailed)		0.034
	N	39	39
Age group	Pearson Correlation	-0.341*	1
	Sig. (2-tailed)	0.034	
	N	39	39
*Correlation is significant at the 0.05 level (2-tailed).			

The relationship between age and performance was analysed through Pearson's correlation. The age group and mean level of participation showed 'r' value of (-) 0.341 and p-value of 0.034 which indicated a mild relationship between the two.

5. Discussion

It has been found that the maximum number of players, i.e. 8 players each (20.5%) fall in the age groups 20, 21 and 22 years group accounting for 61.5% of the sample followed by 4 players in 23 and 24 years group (20.5%). There were 3 players each in 25 and 26th years and only 1 in 27th year. There was no player in the 28th year, which was the highest age group of range of the present study. The mean age of the samples worked out to be 22.36 years. The frequency distribution and mean age of samples had indicated that majority of the samples belonged to the younger ages. In the level of participation, the mean of performance of the players was 4.41±3.704. The maximum mean of performance was in the 22nd year of age with a score of 8.63±3.583 and followed by the 21st year of age with mean score of 4.75±4.2. The minimum mean score was found in the 27th year, which was the penultimate year of the age range of this study with a mean score of 1. The last two years of the age range showed minimum performance index in this study. The likely reason was that in Thang-Ta in addition to the player's skill, the speed, power, agility and flexibility are of great importance, which are more emphasizing in younger age groups. The learning of Thang-Ta starts at an early young age of about 10 years and for attaining a reasonable degree of skill, it takes about 10 years in the traditional martial art of Thang-Ta. It may take lesser number of years as the entire skill set have not been used in the sports version, but it may still require a larger number of years for perfection. Hence, effect of age on the level of participation had been found to be significant. This has been validated by a significant F-value and the result of analysis has also put the study on a sound footing in participation and performance level.

The results of the correlation tests showed that there was moderate to high correlation in both the cases of the correlation, which was analysed in this cases i.e. the Age-Frequency of Player correlation and Age-Performance correlation. In Age-Frequency correlation, the correlation coefficient was above 0.9 in the (-)ve range, which showed a strong correlation of age with frequency of players taken for this study, the reason for 'r' being negative is due to the fact that with increased in age, the frequency decreased. Similarly, in Age-Performance correlation too, though 'r' value was moderately significant indicating a mild relationship between age and performance, the value of 'r' was (-) ve as the age increased from 20th year towards 28th year, the participation level decreased.

Another finding of the study was that a player of Thang-Ta has to start practice at a young age and by the time he reaches the age range of the current study, the player is nearing the age of peak performance (APP). This APP lies around the Mean Age of the players, which lies at 22.36 years. This is supported by the fact that the age group at which maximum mean score of performance lies is 22 years. Assuming the age of entry of a player into major tournaments at 14 years of age, it is quite a long time. Further research would be required to close the gap between the age of entry and age of achieving peak performance.

6. Conclusion

- There was a relationship of age with the number of Thang-Ta players and found more number of players in younger age groups.
- The average age of the Thang-Ta players fell in range of 22-23 years and the

maximum mean score of performance of the samples also fell in this range of age.

- There was a mild relationship between age of a Thang-Ta players and their performance.
- The performance of a Thang-Ta player increased rapidly till 22 year of age and then decreased the performance with increase of age, and the maximum mean performance was found between the 22-23 years of age.

7. References

1. Green, Thomas A. (2001), *Martial Arts of the World-An Encyclopaedia.* California: ABC CLIO.
2. https://barcainnovationhub.com/the influence of age on footballers' performance, Carlos Lago Peñas (retrieved on 05.05.2020).
3. https://www.fatherly.com/health- science/ Most Dads Are Too Old to Be Good at Sports Lauren Vinopal (retrieved 05.05.2020).
4. https://believeperform.com/ The Relative Age Effect in Sport. Tayara, Karim (2020). Retrieved on 27.3.21.
5. https://www.encyclopedia.com/sports/ "Aging and Athletic Performance" 07.05.2020.
6. Indu Devi, Ningthoujam. (2016). *Manipuri Thang-Ta amasung Jagoi.*Imphal, India: Ashangba Communications.
7. Kokngang Singh, L. (2000). *A Historical Study of the traditional Manipuri Martial Arts (Thang-Ta).p.26.* Unpublished doctoral thesis, Manipur University.
8. Meitei, L., & Devi, D. (2020). SWOT Analysis of Thang Ta, Indigenous Sport of Manipur for Strategic Management. *International Journal for Innovative Research in Multidisciplinary Field* ISSN: 2455-0620 Special Issue, Special Issue: 17 July – 2020, 215.
9. Pantelis T. Nikolaidis, José Ramón Alvero-Cruz et.al. "The Age-Related Performance Decline in Marathon Running: The Paradigm of the Berlin Marathon*." International Journal of Environmental Research and Public Health*, 2019 Jun; 16(11)2022.https://www.encyclopedia.com/sports/0 6.05.2020.
10. Rishikesh Aheibam. (2008). *Kanglei Nat ta Thang-Ta gi mapham*, Canchipur, Imphal: NRC.
11. Sheikh, Md. Raheijuddin (2017). Characterisation of iron ore sample from the ancient iron smelting site in Manipur by Energy Dispersive X-ray (EDX) Spectroscopy; *International Journal of Engineering Technology Science and Research, Vol 4, Issue 9.* (Retrieved on 21.2.2019. from http://www.ijetsr.com/)
12. Vanina Bongard, Ann Y. McDermott et al. "Effects of age and gender on physical performance" https://www.researchgate.net/publication/24410730. 05.05.2020.