

Analogizing Of Response Inhibition, Working Memory, Emotional Control Between Team Games And Individual Games Players

Mr. Sarthak Sharma, MPED.Student, Dept. of Physical Education, Lovely Professional University, Phagwara, Punjab

Mr. Sunil Kumar, Assistant Professor, Dept. of Physical Education, Lovely Professional University, Phagwara, Punjab

Abstract

The title was Study of executive Function Skills Between Team and Individual Game by Strait and trait of Team and Individual game the Questionnaire method was used of Peg Dawson and Richard Guare. The total sample was 100 from which 50 was from team games and 50 was from individual games. The result of the present study was discussed in the light of the hypothesis framed in the beginning. There may not be a significant relation of Response inhibition, working memory, Emotional control of Team and Individual game Players. The 't' test was conducted to see the difference between mean of two groups. I showed that there was no significant difference between executive function skills of team and individual game players. The result shows that the executive function skills of team and individual game players are similar as no difference was found between any variable of them. Also, it was concluded that all the 12 variables of team and individual game significance level was set as 0.05. It is also concluded with the study that no significance difference found in executive function skills of team games and individual games players.

Introduction

Games play an important role in human life by playing game we can make our body in a fit posture. By playing any kind of game you can live a healthy lifestyle as comparatively to a normal human. In an ancient time, there are not so many games are there to play and not many people know about games and also, they don't like to play sports or games. As we will talk about sports then we can also say it an activity involving physical exertion and skills in which some teams play with each other to win and to

make other people entertain. The persons who are involved in any type of game are more advance than a normal human because a sports man face up and down each and every day in the game that's why a sports man become more advance in comparison of a normal one. Level of maturity will also increase with playing a game and sports because when we continuously play a sport then not only your physical health remain better it is also helpful for our mental health also that's why a sports person become mentally stronger and more mature than a normal man. Games and sports are also helpful for our body and muscles by doing any kind of sports activity our body and muscles become more stronger day by day which is very helpful for living a healthy lifestyle.

Executive function skills

Executive skills teach us to keep our focus and attention towards our task that's why executive function skills also play an important role in sports and in sports person life by following these skills a sports person become more sincere and more focused towards the target as we all know about sports there are many different types of game are there. In individual game we have to play individually and at that time we need executive skills in us to perform better for ourself and to become successful. And if we talk about team game then also executive function skills are also playing a great role for success. See if we will say about stress coping then here also executive skill is playing important role and if we say about planning then here also, we are getting help from executive function skill in both team and individual game.

Effects of executive function skills on games

Executive function gives a positive effect in normal humans and in athletes life because of the following executive skills a person is able to handle some different type of conditions and in other words we can a human is getting maturity in himself by following these executive function skills. These skills are very helpful factor in athletes life because of these skills athletes are able to take some difficult decision during the game in very normal manner or they are able to handle the situation very easily. Executive skills also help to overcome from the stress it is also an important function which is must needed to a normal man and as well as in athlete. The one who is able to control over his stress and remain calm he will definitely win because he has his mental ability and control or in other words, we can say he have the power and ability to overcome his stress. With the help of executive function skills athlete learn how to manage the time during the game and in his life also. Because it plays an important key for success during game, we

havetodofocusontimeifwehavetoavoidthepenaltyandifwehavetoplaythegame with proper rules and regulation.

Responseinhibition:Responseinhibitionisourcapacityorabilitytoinhibition our own response we can also say this is a felling make ourself conscious and able to act in a natural way. When the requirement is higher than we have to make some cognitive processes to execute some actions to achieve or goals or we cansaytogiveasuccessfulperformance.Responseinhibitionisanexecutive function that enables suppression of no longer appropriate or inappropriate behavioral in a given context.

Working memory: Working memory is also known as key of component of executive function skills this is fully related to our brain where we have stored multipleinformationrelatetoourworkwhichisalsousefulforbeingsuccessin a life or in sports. We commonly use working memory every day in our life or we can also say it that this is the smallest amount of information which wekept in our mind for daily basses and for long term basses and we use this when we have to do the execution of our goal or of our task. It is a useful tool for team gameaswellasindividualgamealso.

Emotioncontrol:Itisabilitytomanageorcontroloveryouremotionsandthis ability is also very useful for success. When we are able to put control over our emotion then it will become easy to reach our goal for athlete and goal is must needed thing with the help of emotion control an athlete will stay calm in his lifeandduringthegamealsowhichisveryhelpfulanditisalsousefulinadown fall of an athlete if he has control over the emotions then he will easily bounce back again in his game and in life too without facing so many disappointments and frustration.

Objective of the study:

The purpose of the study is to identify the difference of executive skills like, Response Inhibition, Working Memory, Emotional Controlbetween team game players and individual game players.

Hypotheses:

This is hypothesized that

There may not be a significance difference of response inhibition between team game players and individual game players.

Theremay not be a significancedifferenceofWorkingMemorybetweenteamgame players and individual gameplayers.

There may not be a significance difference of Emotional Control between team game players and individual game players.

Sampling:

For this study 100 Subjects were chosen. 50 team game players of Basketball, cricket, football, hockey,volleyball and 50 individual game players of badminton, Boxing, table tennis, wushu,taekwondo.

Sample was drawn from Lovely Professional University. Study was conducted on maleandfemalesubjectonlyofAgegroupbetween20to25Sampleof the teamgame was collected from Cricket, Football, Basketball, Hockey, Volleyball, and Sample of an individual game was collected from Badminton, Table tennis, Judo, Wushu, Taekwando.

Sampling technique:

Non probability sampling method was applied. Simple random sampling was executed in order to draw the sample from population.

Tool of data collection: For the assessment, the researcher adopted the followingtest:

A Questionnaire method was used to collect data for the study researcher hence it is qualitative method. Questionnaire method of executive skills is made by Peg Dawson and RichardGuare. and total numbers of question were 30 which will reflect all the parameter in executive functionskills it measures 12 executive functionskillsbut have chosen three of them for the study.

Statistical technique:

The statistical technique applied in order to examine the hypothesis of the study wasdescriptive statistics analysis like mean and standard deviation software SPSS (ver.22) and t-test was applied to examine the comparison of nutritional knowledge between physical education teachers and coaches. For testing the hypothesis, the level of significance was set at 0.05 level.

Analysis of Data:

Table no 4.1: Comparative Analysis of Response Inhibition of Team games and Individual games players

Variable	Group	N	Mean	Std. Deviati	Std. Error	t – value	P- value
----------	-------	---	------	-----------------	---------------	-----------	----------

				on	Mean		
Response Inhibition	Team Gameplayer	53	15.41	5.14	0.70	1.031	0.23
	Individual Gameplayer	53	16.39	4.63	0.63		

Significant level was set at 0.05

The table 4.1 indicates that mean and standard deviation values in regard to response inhibition variable among team game players were recorded 15.14 and 5.14 where as in case of individual game player were recorded 16.39 and 4.63 respectively which shows no significant difference as the calculated t-value is lower than the tabulated value of t and p value(0.23) is higher than the level of significance (0.05). thus, the hypothesis. which states that there is no significance difference of response inhibition between team game players and individual game players, stands rejected.

Figure no. 4.1: Comparative Analysis of Response Inhibition of Team games and Individual games players

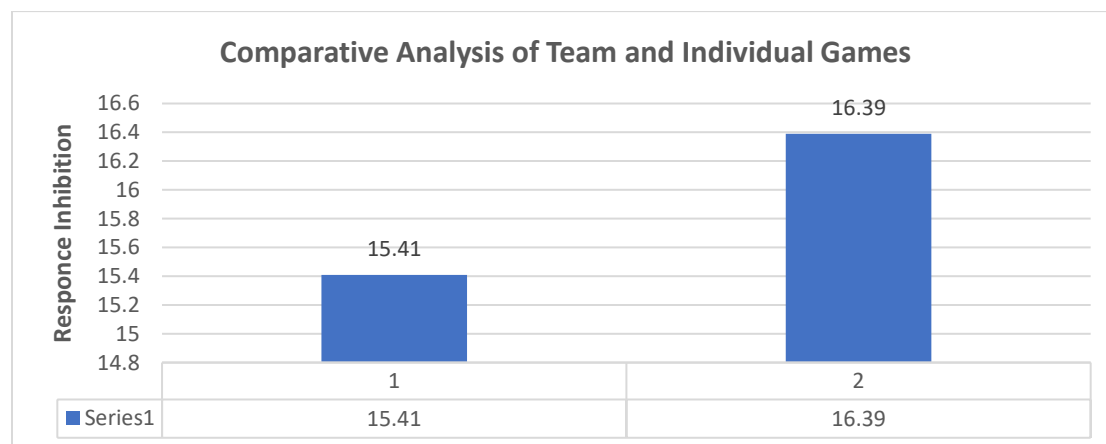


Table no 4.2: Comparative Analysis of Working Memory Team games and Individual games players

Variable	Group	N	Mean	Std. Deviatio	Std. Error	t – value	P- value
----------	-------	---	------	---------------	------------	-----------	----------

				n	Mean		
Working Memory	Team Game player	53	15.37	4.29	.59	.122	0.23
	Individual Gameplayer	53	15.26	5.21	.716		

Significant level was set at 0.05

The table 4.2 indicates that mean and standard deviation values in regard to working memory variable among team game players were recorded 15.37 and 4.29 where as in case of individual game player were recorded 15.26 and 5.21 respectively which shows no significant difference as the calculated t-value is lower than the tabulated value of t and p value(0.23) is higher than the level of significance (0.05). thus, the hypothesis. Which states that there is no significance difference of working memory between team game players and individual game players, stands rejected?

Figure no.4.2 Comparative Analysis of Working Memory Team and Individual game player

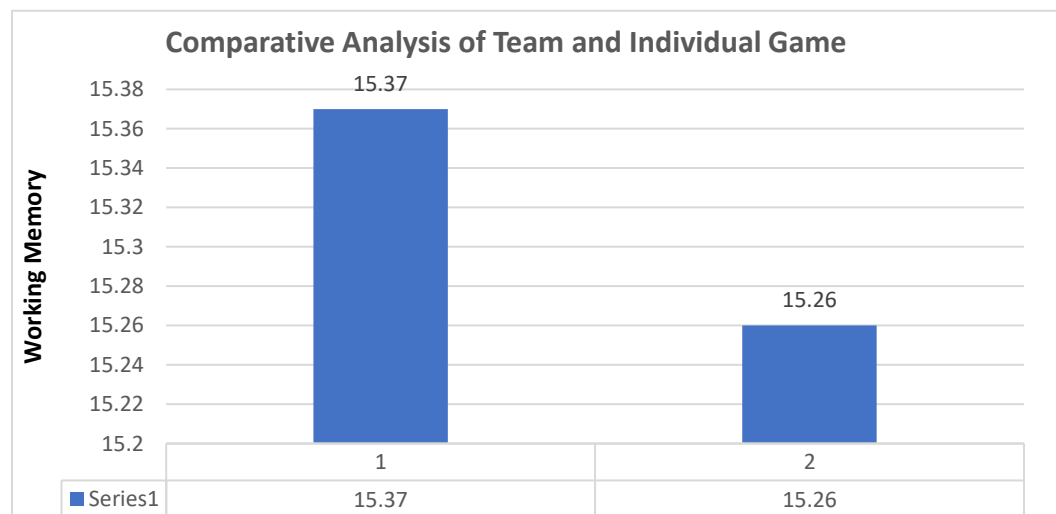


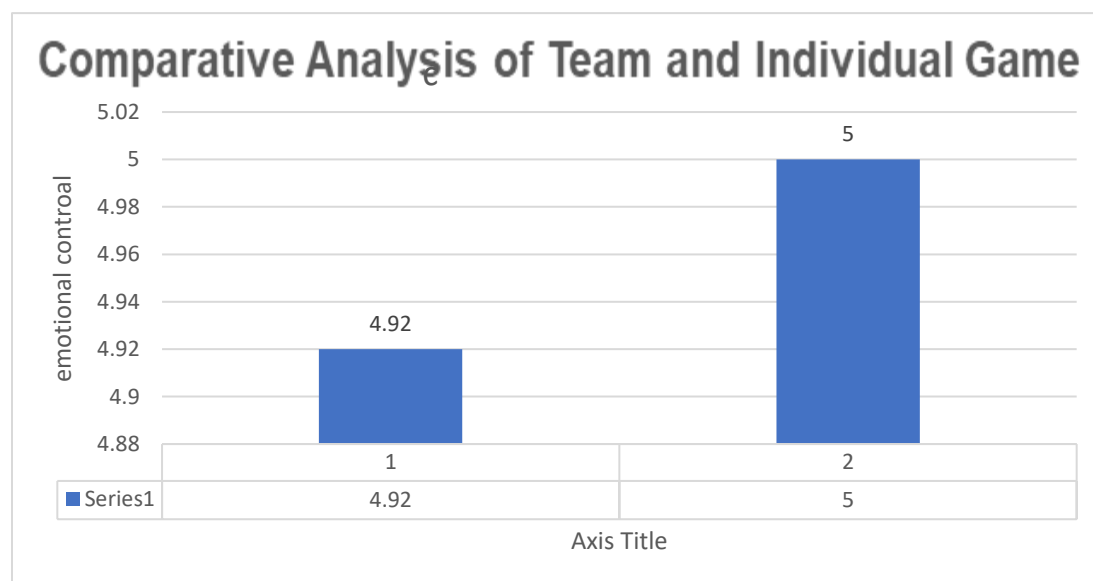
Table no 4.3: Comparative Analysis of Emotional Control of Team and Individual game players

Variable	Group	N	Mean	Std. Deviation	Std. Error Mean	t – value	P- value
Emotional Control	Team Gameplayer	53	4.92	1.84	.25	.202	0.72
	Individual Gameplayer	53	5.00	1.99	.27		

Significant level was set at 0.05

The table 4.3 indicates that mean and standard deviation values in regard to emotional control variable among team game players were recorded 4.92 and 1.84 where as in case of individual game player were recorded 5.00 and 1.99 respectively which shows no significant difference as the calculated t- value is lower than the tabulated value of t and p value(0.72) is higher than the level of significance (0.05). thus, the hypothesis. which states that there is no significance difference of emotional control between team game players and individual game players, stands rejected.

Figure no.4.3: Comparative Analysis of Emotional Control of Team and Individual game players



Discussion

The table 4.1 indicates that mean and standard deviation values in regard to response inhibition variable among team game players were recorded 15.14 and 5.14 where as in case of individual game player were recorded 16.39 and 4.63 respectively which shows no significant difference as the calculated t-value is lower than the tabulated value of t and p value(0.23) is higher than the level of significance (0.05). Thus, the hypothesis. Which states that there is no significance difference of response inhibition between team game players and individual game players, stands rejected?

The table 4.2 indicates that mean and standard deviation values in regard to working memory variable among team game players were recorded 15.37 and 4.29 where as in case of individual game player were recorded 15.26 and 5.21 respectively which shows no significant difference as the calculated t-value is lower than the tabulated value of t and p value(0.23) is higher than the level of significance(0.05). thus, the hypothesis. Which states that there is no significance difference of working memory between team game players and individual game players, stands rejected?

The table 4.3 indicates that mean and standard deviation values in regard to emotional control variable among team game players were recorded 4.92 and 1.84 where as in case of individual game player were recorded 5.00 and 1.99 respectively which shows no significant difference as the calculated t- value is lower than the tabulated value of t and p value(0.72) is higher than the level of significance (0.05). thus, the hypothesis. Which states that there is no significance difference of emotional control between team game players and individual game players, stands rejected?

Testing the hypothesis

There may not be a significant difference of Executive Function Skillsbetween team and individual game of all 3 variables like Response inhibition, workingmemory, Emotional control, this hypothesis is acknowledged in the light of fact that it is true and no significant difference was seen in the Executive Function Skills of team and individual game.

Conclusions

From the result interpreted from this study, the following conclusion was made:

1. The executive function skills of team and individual game players are similar as no difference was found between any variable of them.
2. Also, it was concluded that all the 3 variables of team and individual game significance level was set

as 0.05.

3. It was also concluded with the study that there may not be a significance different in executive function skills of team and individual game player and no significant difference was seen in the Executive Function Skills of team and individual game.

References

- Allen, M., Jones, M., & Sheffield, D. (2009). Attribution, Emotion, and Collective Efficacy in Sports Teams. *Group Dynamics: Theory, Research, and Practice*, 13, 205–217. <https://doi.org/10.1037/a0015149>
- Athlete's Mental Toughness Training | Sports Psychology Articles. (2016, March 17). <https://www.peaksports.com/sports-psychology-blog/mental-toughness-training-athletes/>
- Beasley, B., Greenwald, R., & Agha, N. (2015). NFL Time Management: The Role of Timeouts in End-Game Scenarios. *The Journal of SPORT*, 4(1), 47–64. <https://doi.org/10.21038/sprt.2015.0413>
- Bettis, A., Coiro, M., England, J., Murphy, L., Zelkowitz, R., Desjardins, L., Eskridge, R., Hieber, A., L., Yarboi, J., Pardo, D., & Compas, B. (2017). Comparison of Two Approaches to Prevention of Mental Health Problems in College Students: Enhancing Coping and Executive Function Skills. *Journal of American College Health: J of ACH*, 65. <https://doi.org/10.1080/07448481.2017.1312411>
- Biino, V., Bertinato, L., Rossini, P., & Giuriato, M. (2020). Original Article Influence of highly motivational games on the executive function in adolescence. *Journal of Physical Education and Sport*, 20, 1386–1391. <https://doi.org/10.7752/jpes.2020.03191>
- Cerin, E. (2003). Anxiety versus Fundamental Emotions as Predictors of Perceived Functionality of Pre-Competitive Emotional States, Threat, and Challenge in Individual Sports. *Journal of Applied Sport Psychology*, 15(3), 223–238. <https://doi.org/10.1080/10413200305389>
- Emotional Intelligence in Sports: How Does it Help You? (2018, November 4). Exploring Your Mind. <https://exploringyourmind.com/emotional-intelligence-in-sports-help-you/>
- Furley, P. A., & Memmert, D. (2012). Working Memory Capacity as Controlled Attention in

Tactical Decision Making. *Journal of Sport and Exercise Psychology*, 34(3), 322– 344.
<https://doi.org/10.1123/jsep.34.3.322>

- Gaultney, J., & Hack-Weiner, N. (1993). The Role of Knowledge Base and Declarative Metamemory in the Acquisition of a Reading Strategy.
- Goal Directed Persistence. (n.d.). ADHD: Towards a Better Understanding. Retrieved May 11, 2021, from <http://adhdjourney.weebly.com/goal-directed-persistence.html>
- Hagger, M. S., Chatzisarantis, N. L. D., Griffin, M., & Thatcher, J. (2005). Injury Representations, Coping, Emotions, and Functional Outcomes in Athletes With Sports-Related Injuries: A Test of Self-Regulation Theory1. *Journal of Applied Social Psychology*, 35(11), 2345–2374. <https://doi.org/10.1111/j.1559-1816.2005.tb02106.x>
- Pontifex, M. B., Hillman, C. H., Fernhall, B., Thompson, K. M., & Valentini, T. A. (2009). The Effect of Acute Aerobic and Resistance Exercise on Working Memory. *Medicine & Science in Sports & Exercise*, 41(4), 927–934. <https://doi.org/10.1249/MSS.0b013e3181907d69>
- Rose, M., Ober, T., Macnamara, A., Olsen, A., Homer, B., & Plass, J. (2018). The Effect Of Hot Versus Cool Game Character Designs On The Training Of Executive Functions.
- Stress in sport. (2013, May 24). BelievePerform - The UK's Leading Sports Psychology Website. <https://believeperform.com/stress-in-sport/>
- Time Management | Student Athletes. (n.d.). Retrieved May 11, 2021, from <https://ukstudentathletes.wordpress.com/time-management-2/>
- Understanding the 4 Types of Attention. (2013, February 6). MindMed. <http://www.adhd-app.com/2013/02/06/understanding-the-4-types-of-attention/>
- Wilson, K., & Brookfield, D. (2009). Effect of Goal Setting on Motivation and Adherence in a Six-Week Exercise Program. *International Journal of Sport and Exercise Psychology*, 7(1), 89–100. <https://doi.org/10.1080/1612197X.2009.9671894>