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Mental Toughness as Correlate of Athletes' Performance in Track And Field Events Among Secondary Schools in Osun State, Nigeria

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Abstract:

The study was designed to examine mental toughness as a correlate of Athletes' performance in track and field events. The study was carried out purposively selecting 300 student athletes of Osun state secondary schools. The respondents had participated in intra-mural and extra-mural sports competitions, out which 300 athletes made of 150 track and 150 field events were purposively as respondents. An instrument, Psychological Performance Inventory (PPI) was used to measure the mental toughness levels of the athletes showing scores obtained, while the position ranking during competitions and marks allotted for each was used to measure the performance. Pearson Product Moment Correlation "r" was used to determine the relationship between mental toughness and performance of the athletes, with significance level set at 0.05 levels.

The result revealed that there was no significant relationship between performance of track event athletes and mental toughness, but there was significant relationship between performance of field event athletes and mental toughness, however, in overall both events showed significant correlation. The study concluded that mental toughness has relationship with performance and could enhanced performance if proper instructed by coaches to the athletes

Keywords: Mental toughness, performance, track and field events, secondary schools.

1. Introduction

One of the cardinal purposes of establishing educational institutions which include primary, secondary and tertiary institutions, apart from academic work at large was to engage students in physical activities or sports that would make them to have sound mind in sound body. To achieve this purpose, each educational institution organizes sports competitions inform of intra-mural and extra-mural competitions (Hannah 2015). Among the events so endeared to, especially at secondary schools' level are track and field events organized as, "AA", that is, Athletics Association Sports competition in Osun State. This event is organized yearly, and well looked forward to by students, their coaches, school administration and parents. However, it is observed that these events which used to be an avenue for recruiting athletes for the State have suffered neglect, and in many occasions such competition is in preparation for National school sports festival and National sports festival held biannually has not be productive enough to produce excellent athletes in athletic to give the State desired result at National level competitions. Media reports always indicate poor outing for the state in each of these competitions whenever staged (Osun Defender 2018)

The place of track and field events in secondary schools' sports and curriculum is so cherished because, "it is the basis of all sports, known as the "mother" of the movement. (Ji-Long, Bin-Ji, Li-hua, & De-long 2012). Liu (2002) observed that "in track and field events, the curiosity with respect to the limits of human athletic performance has always been of interest to athletes, coaches and scientists". He further stated that, "track and field performances are the oldest competitive sports, and that the interest in human being's ability and accomplishment in running, jumping and throwing has a long and diversified history".

Effective performance displayed by an athlete in any human capacity can be linked with their personal attributes, and excellent performance is a by-product of many personal attributes, especially in sports (Awosika&Olusola 2014). Most especially, it is common belief that winning competition depends on 10% physical and 90% mental preparation, which is psychological (David 2016). Performance can be regarded as a function of motor skills and psychological variables (Donsung and Kan-Heon 1994).

Mental toughness is a personality attribute found in athletes and can be described as resilience, calm, and readiness to bounce back in the face of failure and adversity (Raj & Khem 2004). It is an important skill for all athletes as it prepares them for different situations in a tournament and it is also directly related to the athlete's performance and achievement (Mohammed, Omar-Fauzee, Abu 2009). The importance of mental toughness in determining the winner in a sports competition cannot be underestimated for its significant contribution to enhancement of sports performance

(Gould, Diffenbach, and Moffet, 2002). Robson (2008) quoting Jennifer Eberest, a swimmer, described mental toughness as doing whatever is necessary to get the job done including handling the demands of a tough workout, withstanding pain, or touching an opponent out at the end of a race. In other words, the athletes enjoy the pressure and pain, not just being about resilient, but about managing something unpleasant and actually gaining pleasure from tough situations.

Mental toughness evolved from the theory linked to personal construct theory developed by Kelly (1955), which state that a person's processes are psychologically channelized by the ways in which he/she anticipate events(Bannister &Fransella 1986). The theory focuses on both uniqueness of individual striving to understand, interpret, anticipate and control their world of experiences in order to deal effectively with it. The emphasis on the human experience is important, as this study is interested in the live experience of individual athlete and how they interpret and develop mental toughness. Mental toughness and performance are interrelated, it is believed that mental toughness is often referred to as winning "the inner game" or "the mind game" in sports, that gives affective and clear advantage not only in competitive sports but also in our personal fitness, health and training goals; affecting our emotion, physiology and behaviour/actions (Phil 2010). The pursuit of excellence in sports depends on four key factors of performance namely physical, technical, tactical and mental skills. However, when physical, technical and tactical skills are evenly matched, a common occurrence at elite level, is that performer with greater levels of mental toughness that seem to prevail most often (Gucciard& Gordon 2011). Mental toughness is great skill to have whenever athlete participate in any sports competitions. For it is just as relevant as having stamina and physical toughness combined because it makes the opponent fear and gives sense of bouncing back anytime whether during or after the sports competitions.

Richard (2017) had established this relationship in a study investigating relationship between mental toughness and measure of competitive performance in Tennis. It was found that mental toughness contributes to successful performance during a Tennis competition.

There have been reports of poor performance of Osun State Secondary Schools athletes in sports, despite the effort of coaches in physical training. It is not certain if the poor performance of the athletes is a result of their level of mental toughness.

This study is designed to determine the relationship between athlete's performance and their mental toughness. It was hypothesized that there will be no significant relationship between mental toughness and performance, and; specifically, there will be no significant relationship between mental toughness and performance in each of track and field events.

2. Material and Methods

The objective of the study was achieved using purposive sampling technique to select 300athletes who had participated in track and field events during intra-mural and extra-mural sports competitions in Osun State Secondary Schools, Nigeria. The sample was made up of 150 track and 150 field events athletes irrespective of age or sex. To determine mental toughness levels of selected respondents, adapted structure and validated questionnaire- Psychological Performance Inventory (PPI) made up of seven attributes of: (Self- confidence, Negative energy, Attention control, Visual and imagery control, Motivational level, Positive energy and Attitude control) was administered. The instrument was subjected to a pilot study through administration on 75 athletes purposively selected from other secondary schools that were not part of the study, the instrument was reliable and consistent with Cronbach's alpha at 0.98 calculated. Performance was measured by the athlete's position ranking during competition with designated marks for statistical purpose.The questionnaires were personally administered after thorough explanation to the respondents through the assistance of the school coaches with maximum cooperation assured. The questionnaire booklet was collected, score per instruction and raw data were quantified and statistically processed. The data was analyzed using descriptive statistic of mean, standard deviation and standard error; while inferential statistic of Pearson's product moment correlation coefficient was used to determine the relationship between mental toughness and sports performance with significance level set at 0.05 levels.

3. Results

The results revealed the number of subjects, correlation coefficient and significant levels as shown on tables 1, 2 and 3. The tables showed relationships in the influence of mental toughness to performance outcome by different analytical groups: overall, track event and field event athletes.

Variables	N	"r"	P
Physical Performance	300	.171	.003**
Mental toughness levels/Performance 3			

** Significant at $P < 0.05$

Table 1: Correlation Analysis Showing the Relationship between Mental Toughness and Performance in Both Events

This table shows that mental toughness has significant relationship with performance of the athletes when athletes 'in both events were analyzed. There were three levels of mental toughness indicating also levels of performance in mental toughness scale as high, medium and low, which was used to correlate the physical performance. The finding on the table showed the number of athlete examined alongside their performance obtained through their positions ranking scored as 300, and the obtained "r" value is .171, which indicate that there is statistical significant relationship between mental

toughness and performance when analyzed overall with p-value revealed .003, less than significance level of 0.05. This result reject the main null hypothesis that mental toughness will not correlate performance.

Variables	N	"r"	P
Physical Performance	150	.133	.106
Mental toughness levels / Performance 3			

Table 2: Correlation Analysis Showing the Relationship between Mental Toughness and Performance in Track Event

Table 2. This table shows that mental toughness has no significant relationship with performance of the athletes when track events athletes were analyzed. The finding on the table showed the number of athlete examined alongside their performance obtained through their positions ranking scored as 150, and the obtained "r" value is .133, which indicate that there is no statistical significant relationship between mental toughness and performance when track event athletes were analyzed with p-value revealed .106, greater than significance level of 0.05. This result accepted the null hypothesis that there will not be relationship between mental toughness and performance in track event.

Variables	N	"r"	P
Physical Performance	150	.236	.004**
Mental toughness levels/Performance 3			

** Significance of 0.05

Table 3: Correlation Analysis Showing the Relationship between Mental Toughness and Performance in Field Event

Table 3 revealed that mental toughness has significant relationship with performance of the athletes when field events athletes were analyzed. The finding on the table showed the number of athlete examined alongside their performance obtained through their positions ranking scored as 150, and the obtained "r" value is .236, which indicate that there is statistical significant relationship between mental toughness and performance when track event athletes were analyzed with p-value revealed .004, less than significance level of 0.05. This result reject the null hypothesis that stated that there will be no relationship between mental toughness and performance in field event.

4. Discussion

From the result of this study, mental toughness has predicted value on performance of athletes in sports competitions. Although, mental toughness strength having three levels of high, medium and low as the number indicated on the tables to which research had shown to the extent athletes falls on mental toughness profile (Adegbesan 2008); however, beyond obvious, it is necessary to know the direction of these mental toughness strength as it affect performance of the athletes, since it had been established that influence of mental toughness depend on specific match situation (Richard 2017)

Based on the above, correlating athlete's physical performance with the mental toughness strength based on three levels produce relevant statistical information as indicated in the tables.

For track events athletes, believe is that mental toughness has no contribution to their performance, while in field event, athletes believes that mental toughness has influence on their performance. Even though, the analysis on both events showed differences on influence of mental toughness on their performance, which may due to whom the athletes are competing with and how important the competitions are to them; overall analysis as indicated on the tables showed that mental toughness have statistically significant relationship with performance of the athletes. This may be explained as reported that there is positive relationship between athletes' experience of psychological flow and optimal performance, and this flow is universal among athletes regardless of what sports athletes play or the type of sports in which athletes are involved (Alycia 2014)

The findings in the present study support Richard (2017) who opined that mental toughness contribute to successful performance, and, influence of mental toughness depend on specific match situations. It also supports the view that performance can be aided when relevant psychological cues are focus upon; while performance can be affected when the focus involves performance-irrelevant cues such as negative thought, anxiety, and concern over who the next opponent will be if one win (Jim 2016).

5. Conclusion

Mental toughness could be considered as a psychological technique that can enhanced athlete's performance if utilized during training and sports competitions, and, giving athletes psychological edge. The finding has implication for athletes and their handlers as tools for motivation and as a goal setting technique.

6. References

- i. Adegbesan, O. A. (2008) Assessment of Mental Toughness status of University athletes before competition in Nigeria. The African Symposium: An online Journal of Africa Educational Research Network (8) 1, 19-23
- ii. Alycia, P. (2014, May 11) The Psychological of Individual and Team Sports (Basic). University of Utah. Retrieved from Sportscience.utah.edu/team-Psychology-Basic

- iii. Awosika, Y. & Olusola, B. S. (2014) Personal Attributes as determinants of Sport Participation among undergraduates in selected Nigerian Universities. *International Journal of Science Culture and Sport*. ISSN: 2148-1148 DOI: 1014486/IJSCS
- iv. Bannister, D., & Fransella, F. (1986) *Inquiring man-the-theory of personal constructs*. London: Croom Helm
- v. David, C. (13th June, 2016) What is Mental Toughness? LIVESTRONG.COM.
- vi. Dongsung, S. & Kag-Heon, L. (1994) A Comparative study of Mental toughness between Elite and Non-Elite female Athletes. *Korean Journal Sport Science*, 6, 85-102.
- vii. Golby, S., Sheard, M., & Lavalle, D. (2003) A cognitivebehavioural analysis of mental toughness in National rugby league teams. *Perceptual and Motor Skills*, 96, 455-462
- viii. Gould, D., Diffenbach, K. & Moffett, A. (2002) Psychological talent and its development in Olympic champions. *Journal of Applied Sports Psychology*, 14, 177-210
- ix. Gucciardi, D., & Gordon, S. (2011) *Mental toughness in Sport: Development in theory and Research*. *Research in Sport and Exercise Science*: Routledge; 1st Edition
- x. Hannah, O. (2015) The Relevance of Sports to the development of Education in Nigeria, 1904 Till Date. *History Research*, 5, 3, 188-196
- xi. Jones, G., Hanton, S., & Connaughton, D. (2007) A framework of mental toughness in the world's best performances. *The Sport Psychologist*, 21, 243-264
- xii. Kelly, G. A. (1955) *The Psychology of Personal Constructs*. New York: Norton
- xiii. Liu, Y. (2002) Track and Field Performance and Competitions in the new Millennium: will it be a thematic change?. *International Sport Journal*, 6: 29-35
- xiv. Mohammed, N. A.; Omar-Fauzee, M. S. & Abu, S. B. (2009) The effect of Higher score of Mental Toughness in the early stage of the League towards winning among Malaysian Football Players. *Research Journal of International studies*, 12, 67-78
- xv. Norris, E. K. (1999) *Epistemologies of champion: A discursive analysis of champions retrospective attributes*; looking back and looking within. Michigan: Michigan University Microfilms International
- xvi. Osun Defender (2018, March, 30) Situation Reports of Osun State Sport Performance
- xvii. www.osundefender.com/tag/state-of-osun-sport-council
- xviii. Phil, P. (2010) *Mental Toughness Coaching Training and Hypnotherapy*
- xix. <http://twitter.com/mentaltoughness>
- xx. Radwan, F. M. (2014, March, 10) 5 Psychological factors that affect sports performance.
- xxi. Retrieved from <https://www.goodreads.com>
- xxii. Raj, Y. B. K. & Khem, J. (2004) Mental Toughness Indices a stoic character in sportsmen with fortitude in Adversity, Trinidad Wis
- xxiii. Richard, G. C. (2017) *Mental Toughness and Success in Sport: A Review and Prospect*
- xxiv. *The Open Sports Sciences Journal*. ISSN: 1875-3997 Vol. 11