

## PSYCHOLOGICAL FACTORS AS PREDICTORS OF TALENT IDENTIFICATION FOR SPORTS DEVELOPMENT IN STATES SPORTS ORGANISATIONS IN NIGERIA

BY

**M.U. Sani (Ph.D.), JIBRIN, Garba, Prof. S.M. Bichi, A I. Danlami (PhD) & Mubarak Umar (PhD):**  
**Department of Human Kinetics and Health Education, Faculty of Education, Ahmadu Bello University,**  
**Zaria, E-mail: [alidanlami3377@gmail.com](mailto:alidanlami3377@gmail.com)**

### Abstract

*The purpose of this study was to assess the psychological factors as predictors of talent identification for sports development in States sports organisations in Nigeria. To achieve this purpose, survey research design was used for this study. The total population was 4,573 in the six Geo-political zones of Nigeria. The sample size for this study was 357. The instrument used was a self-developed questionnaire for this study. A descriptive statistics of frequencies and percentages were used for the analysis of the demographic characteristics of the respondents, mean and standard deviation were used to analyse answers to the research questions while inferential statistics of one sample t-test was used to test the hypotheses at 0.05 level of significance. The result of the study revealed that psychological factor was rejected as it is one of the significant predictors of successful talents identification among athletes for sports development in the states sports organizations involved in the study. This is indicated with an calculated t-value (38.143) for the test and a t-critical of 1.96 with p-value of 0.000 ( $p < 0.05$ ) obtained at 353, degree of freedom (df). The calculated mean score (4.03) was significantly greater than the benchmark of 3.00 level of significance. The researcher concluded that psychological factor significantly predict talents identification among athletes for sports development in the states' sports organizations in Nigeria. The researcher recommended that talents' identification requires monitoring from early age and mostly at secondary schools and early part of tertiary education.*

**Keywords:** *Psychological factor, Predictor, Talent Identification, Sports Organisation*

### Introduction

Sports Talent Identification (TID) refers to the discovery of potential athletes in a heterogeneous population that are currently not involved in a specific sport. Talent identification is a key area within sports development, and talent identification is inseparable from the growth of athletes. As a key part of cultivating sports talents, talent identification could be a helpful tool to stimulate lifelong sports participation and reduce drop-outs from the sports the athletes are participating because it can reveal an optimal connection between sports, individual strengths, and personal preferences (Prieto-Ayuso, Pastor-Vicedo, González-Víllora, and Fernández-Río(2020)).

However, there are some differences between talent detection, identification, development, and selection. The differences are, talent detection is the first stage involved in the conversion of a talented individual into an elite athlete and talent detection intends to support lifelong sports participation, reduce drop-outs, and stimulate their interest at the higher level (Faber, Munivrana, Faber, Maria, and Nijhuis-Van der, 2017). Talent identification is predicting athletes who have the potential skills to development into elite athletes; talent development processes involve experienced, well-qualified coaches, careful training, academic education (Ford, Bordonau, Bonanno, Tavares, Groenendijk, Fink, 2020), athletic rehabilitation, athletic load capacity control, and professional sports skills guidance to athletes; and talent selection mainly concerns about choosing the most appropriate group of athletes to complete a specific task (in a team) in sports (Höner, and Feichtinger, 2016). In short, talent detection, identification, development, and selection compose the whole process that runs through different stages of sports identification, and each has its own characteristics and requirements. From a more contemporary perspective, Norikazu, and Taigo, (2016) defined talent identification as the process by which children are encouraged to participate in the sports in which they are most likely to succeed, based on results of testing selected parameters. These parameters (Physical, Physiological, Psychological, Sociological, Environmental factors) have been shown to predict future performance, taking into account the child's current level of fitness and maturity.

Talent identification at an early age is one of the major methods to identify potential athletes for nurturing. India has been implementing this method of talent identification procedure since 1980. Athletic talent identification is

approached from many different angles, depending on which countries we are looking at and the sport for which athletes are being recognized and recruited. Today it is acknowledged that appropriate support and training are essential if talented individuals are to fulfill their potentials. Partly for this reason, the early identification of talented athletes is an increasingly important consideration for researchers and practitioners alike. Once talented individuals have been detected, crucial but limited support resources can be optimally deployed to further raise and develop these talents. Without such support however, the needs of talented children may not be met and their gifts remain undeveloped.

Haugaasen, Toering, and Jordet, (2014) stated that sports talent should be recognized and encouraged in children after the age of 10 years, since such talents are an important part of a child's potential and one that deserves recognition and encouragement. Ahmetov, Egorova, Gabdrakhmanova, and Fedotovskaya, (2016) suggested that the first stage of identification should take place between the age of 8-10 years in the form of mass screening and this should be followed up to 18-24 months later. Final talent identification should take place at around 14 years of age. David, Nima, and Joseph, (2017) suggested that the age at which a child gets involved in a specific sport depends on the sport. For instance, he suggested age 7-8 years for swimmers, gymnasts, tennis players and skaters, to age 12-13 years in boxing and cycling and age 13-14 years in shooting and weightlifting. Sports talents are products of heredity and environment. But a person must be endowed with basic minimum of biological potential only then it can be developed through training and other environmental factors to a level needed in performance sports. According to Joseph, Nick, and Jörg (2019) genetic factors probably play a major role in a person's performance capacity, at least for those persons aspiring to the levels required for the attainment of Olympic medals. According to them about 70% of an individual's maximal force, power or capacity is a matter of genetical factors. Identification of talent is made more complicated by the fact that it must also take into consideration the possibilities of development of the various performance prerequisites. This is very difficult task as the trainability of performance prerequisites depends basically on heredity and training activity and both are-affected by a multitude of factors during the course of life.

According to Lai and Ishizaka (2020), stated that there is a consensus in the scientific and sporting communities that genetic factors contribute to athletic performance. These genetic factors are also known as predictors of talent identification includes physical factors (e.g. height, weight, muscle girth, strength, speed), physiological factors (e.g. aerobic endurance, anaerobic power), sociological factors (e.g. parental support, practice opportunities, facilities available, education), coaches' knowledge, environmental factors (emotional and financial support specialized classes, coaching, educational contexts, and access to opportunities and psychological factors (e.g. confidence, concentration, anticipation, decision-making), Physical factor quality is not only the foundation guarantee of athletes but also the basis of special sports quality. Physical factors have an effect on sport talent identification which includes height and weight, motor ability, and anthropometric indices which represents the scientific measurement of the human body such as BMI, height, weight, head circumference, and limb length.

According to Lath, Koopmann, Faber, Baker and Schorer (2021) the physical qualities of athletes generally include strength, speed, endurance, agility, and flexibility. Good physical quality is the basis for mastering sports skills and tactics as well as improving sports performance. The more comprehensive the physical quality is the more conducive it is to the mastery of sports skills and tactics. In this way, good use of the important role of anthropometry in the sport talent identification must be highlighted. With the application of anthropometric data and comprehensively considering the relationship among human body's morphological structure, physiology, physical quality, and talent identification technology, we can improve the success rate of youth sport talent identification and reduce the missed selection rate (Lath, Koopmann, Faber, Baker & Schorer, 2021).

Physiological factors on the other hand, included anthropometrical, linear speed, change of direction speed (CODS), maximal anaerobic power, repeated sprint ability (RSA), maximal aerobic power, and maximal lower body strength, and they should be taken into account in the TID of soccer in the testing batteries (Dodd and Newans, 2018). Physiological capacity parameters: aerobic capacity, anaerobic strength Clarke, Cushion, and Harwoo (2018)). Research in sports has found that certain anthropometric physiological factors differentiate abilities between players in various sports (Slimani, and Nikolaidis, 2017). This study suggests that these factors should be explored for consideration in talent search (Slimani, and Nikolaidis, 2017). Each sport has its own

physical requirements, for example volleyball, requiring individuals with relatively high height, shoulder width and long legs (Johnston, Wattie, Schorer, and Baker, (2018), Mann, Dehghansai, and Baker, 2017) More deeply, anthropometric characteristics measured based on aerobic power, flexibility, and explosive strength are important determinants of successful performance in gymnastics (Slimani, and Nikolaidis, 2017). These findings may have practical implications that certain body types are chosen for specific roles and have an important role to play in the success of aspiring athletes.

Psychological factors of talent identification means the mentality maturity of the personal are advantaged on performance tests ([Platvoet, Elferink-Gemser, Baker, and Visscher 2015](#)), psychological factors manifesting itself at various levels, having a predominantly unconscious nature. Likewise, a systematic review also indicated that psychological factors (e.g., adaptive perfectionism, task/mastery orientation, delaying gratification, and coping strategies) are associated with talent development in football and suggested that psychological characteristics of self-regulation, resilience, commitment, and discipline appear to be most impactful on talent identification ([Gledhill, Harwood, and Forsdyke, 2017](#)).

Generally speaking, different sports items have different requirements for individual psychological characteristics. However, on the whole, an athlete who can bear hardships and love sports in his/her heart will certainly have a good psychological performance. At the same time, some athletes' good psychological performance is innate and affected by genetic factors, but it will also be affected by the acquired influence of society, family, and school education. Clarke, Cushion, and Harwoo (2018) stated that coaches' knowledge as an important organizer and executor of sport talent identification, play an inseparable role in the process of sport. It is always said that swift horses are usually found but not the same as the person who has good judgments to spot them. A professional and experienced coach can fully understand and tap an athlete's sports potential, as well as can predict whether a student has the ability to become an excellent athlete in future. The professional quality and ability of coaches have laid a theoretical and practical foundation for them to identify sports talents. At the same time, the more familiar coaches are with individuals, the more they can understand their inner world and whether they truly like sports, so as to better know which individuals have the qualification to become athletes (Li,,Chen,Wu, Xin, and Chen, 2021).

Pena (2017) noted that facilities and equipment are important, if they are available, adequate and well-maintained, there is every possibility of athletes participating in sports programmes. Barghchi & Omar (2017) also observed that standard facilities and equipment are essential prerequisites to athletes' participation and achievement in sports. It is important to note that the presence of adequate facilities will help keep athletes busy and stimulate them to learn new skills and make learning permanent. Sports facilities are crucial to the development of athletic potential because they act as significant stimuli that attract or influence most young people's emotions in relation to sports. Thus, when sports facilities and equipment are not available for athletes to use, they might not develop much interest in sports (Danjuma, 2017).

### **Statement of the Problem**

Nigerian authorities have shown continued interests in sports development especially talent identification programmes by drawing policies and procedures to guide practice and setting up sports management structures, implementation of successive sports development plans is plagued with political and economic problems. As a result, very little is being done in terms of building sport infrastructure, funding athletes' development programmes and supporting sports development research.

The identification of talent in Nigeria sports is a critical issue. Coaches believed the government did not give sport development the appropriate attention, thus, talent identification in sports was poorly valued by every section of the society. Athletes and coaches go through a lot of challenges in Nigeria because there is no supports and encouragement for development. The society will only celebrate them if and when they succeed in their sports, so the major the question is what happens before they succeed? You know whatever happens to the head happens to the whole body, since Nigeria as a country is not giving the deserved attention to sport development, everywhere in the nation will have athletes and their coaches having to swim against the tide of several barriers to development in the environment.

Another problem is corruption and administrative incompetence. Coaches and their athletes have not been very lucky with the type of sport administrators we have in the country. It has been rough to say the least. Our sport administration is very bad, in fact, most of the sports administrators do not have any knowledge of sport development and they never care about the ordeal of the athletes and their coaches because their main priority is to enrich themselves. There is the issue of families opposing their children from participating in sports. Parents want their children to go to school and be fully committed to their studies, therefore, parents refuse to allow their children get involved in sports/training, because they believe this would be a form of distraction for the child. So, the task of the coach is to convince parents that their children can still go to school and be focused on their studies as well as going to training to develop their athletic talents. Parents also prevent their children from taking part in sports because they believe it is a barrier to the children academic development.

School environment is also hostile to talent identification. Teachers who should collaborate with the coach and the parents in supporting the development of the athletes are not encouraging; they consider athletes as unserious students who waste their time on sports. When you participate in sports as a student in Nigeria you are seen as a cast away. Teachers and lecturers would see you as unserious with your studies because they see you playing sports; while in a real sense, they are supposed to be supportive of your development. There is a lot of discouragement from the schools. In a case where a school principal takes sports participation as a crime for the students, he would oppose sports openly and go as far as punishing students for playing sports; this makes it difficult for the children to develop interest in training which invariably affect talent identification programmes in the country. Therefore, this study is aimed at assessing the predictors of talent identification for sport development in states sports organisations in Nigeria.

### **Purpose of the Study**

The purpose of this study was to assess psychological factor that predict talent identification for sports development in states sports organisations in Nigeria. Specifically, this study was carried out to find out whether: Psychological factor predicts talent identification for sports development in states sports organisations in Nigeria

### **Research Question**

Will Psychological factor predict talent identification for sports development in states sports organisations in Nigeria?

### **Hypothesis**

Psychological factor will not significantly predict talent identification for sports development in states sports organisations in Nigeria

### **Methodology**

This research design that was used in this study is a descriptive survey research. Consequently, the information required for the study is within the reach of the respondents. The most suitable survey research design as suggested by Salkind (2019) is the ex-post-facto research design. Salkind maintained that the 'after-the fact research' is a category of research design in which the investigation starts after the fact has occurred without interference from the researchers. On the basis of the above concept, the ex-post-facto research design was selected to assess the predictors of successful talent identification for sports development in states sports organisations in Nigeria. The population of this study is four thousand, five hundred and Seventy-three (4,573) which consist of all Directors of Sports, Deputy Directors, Assistant Directors, Coaches and talent scouts of States Sports organisations of the 36 states and Federal Capital Territory (FCT) Abuja of Nigeria. The sample size of the study is three hundred and fifty seven (357) respondents. A Multi-stage, sampling technique was used for this study. The instrument for data collection for this study was the researcher's self-developed questionnaire. The Five (5) point Likert scale format will be used for this study. The five (5) point Likert scale will be structured as follows: Strongly Agree (SA) 5 Points, Agree (A) 4 Points, Undecided (U) 3 Points, Disagree (D) 2 Points and Strongly Disagree (SD) 1 Point. For the analysis of the research questions, the criterion or acceptance mean of 3.5 will be used in taking decisions.

**Results**

**Research Question:** Will psychological factors predict talents identification for sports development in states sports organizations in Nigeria?

**Table 1**

*Mean scores on psychological factors as predictor of talents identification in sports development*

| N                     | Psychological factors as predictors of talents identification in sports development | Mean        | Std. Dev.    |
|-----------------------|---|-------------|--------------|
| 1                     | Mental maturity is a predictor in talents identification                            | 4.18        | 0.673        |
| 2                     | Emotional stability is a predictor of successful talents identification.            | 4.16        | 0.895        |
| 3                     | Belief in oneself is a predictor of identification of talents                       | 4.32        | 0.586        |
| 4                     | Personality is a determinant factor in talents identification.                      | 4.13        | 0.786        |
| 5                     | Aggression is a determinant factor in talents identification                        | 4.16        | 0.991        |
| 6                     | Self-discipline is a predictor of successful talents identification                 | 3.85        | 0.626        |
| 7                     | Reward is a determinant factor in successful talents identification program         | 3.72        | 1.265        |
| 8                     | Attitude is not a predictor of talents identification                               | 4.10        | 0.936        |
| 9                     | Confidence is a predictor of successful talents identification.                     | 3.90        | 0.812        |
| 10                    | Anxiety is a negative predictor of talents identification                           | 3.81        | 0.827        |
| <b>Aggregate mean</b> |   | <b>4.03</b> | <b>0.510</b> |

*(Benchmark = 3.00)*

Table 1 showed that respondents were in agreement that psychological factors are predictors of talents identification of athletes for sports development in the states' sports organizations.. The aggregate mean score of 4.03 with a standard deviation of 0.510 is greater than the benchmark of 3.00 which implied that the respondents were of the view that psychological factors could help in predicting talents identification among athletes for sports development in the states; sports organizations.

**Ho:** *Psychological factors will not significantly predict talents identification for sports development in states sports organizations in Nigeria*

**Table 2**

*One sample t-test on psychological factors will not significantly predict talents identification for sports development*

| Variables             | N   | Mean | Std. Dev. | Std. Error | t-value | df  | p-value |
|-----------------------|-----|------|-----------|------------|---------|-----|---------|
| Psychological factors | 354 | 4.03 | 0.510     | 0.027      | 38.143  | 353 | 0.000   |
| Test mean             | 354 | 3.00 | 0.000     | 0.000      |         |     |         |

*(t-critical = 1.96, p < 0.05)*

The test revealed that, respondents were in agreement that psychological factors could significantly predict talents identification among athletes for sports development in states sports organizations in Nigeria. The observed mean score (4.03) was significantly higher than the benchmark (3.00). This is indicated with an calculated t-value of 38.143 for the test with a p-value of 0.000 ( $p < 0.05$ ) obtained at 3539, degree of freedom (df). These observations provided enough evidence to reject the null hypothesis. The null hypothesis that, psychological factors will not significantly predict talents identification for sports development in states sports organizations in Nigeria is therefore rejected. The result implied that, respondents agreed with the suggestion that psychological factors could significantly predict talents identification among athletes for sports development in states sports organizations in Nigeria.

**Discussion of findings**

This hypothesis revealed that psychological factors are also significant predictors of talents identification among athletes for sports development. The study revealed that the psychological factors include mental maturity, emotional stability of individual athletes, athletes' belief in self and perceived personality of individual athletes. Others found to have impact on talents identification were aggression status of individual athletes, management of self-discipline, role of reward, attitude of individual athletes, confidence demonstrated by athletes and levels

of anxiety exhibited could play a significant role in predicting talents identification among athletes. The expressed opinion was found to be significant in the test of the related hypothesis.

### Conclusion

Based on the findings, it was concluded that psychological factors significantly predict successful talents identification among athletes for sports development in the states' sports organizations in Nigeria.

### Recommendations

Based on the conclusion of the study, it was recommended that intrinsic and extrinsic motivation should serve as determinants for success and improvement for successful talents identification among athletes for sports development in the states' sports organizations in Nigeria.

### References

- Ahmetov, I. I., Egorova, E. S., Gabdrakhmanova, L. J., & Fedotovskaya, O. N. (2016). Genes and athletic performance: an update. *Genet. Sports* 61, 41–54. doi:10.1159/000445240
- Barghchi, M., & Omar, D. (2017). Town planners' perceptions of sports facilities and urban development: a case study of 13 states' main sports facilities in Malaysia. *Journal of the Malaysian Institute of Planners*, 12, 19–34.
- Clarke, N. J., Cushion, C. J., & Harwoo, C. G. (2018). Players' understanding of talent identification in early specialization youth football. *Soccer Soc.* 19, 1151–1165. doi: 10.1080/14660970.2018.1432388
- Danjuma, M. M. (2017). Administrative Determinants of Students' Sports Participation in Nigeria. *Sport Management International Journal*, 13(1), 69-82.
- David, L. M., Nima, D., & Joseph, B. (2017). Searching for the elusive gift: advances in talent identification in sport. *Curr. Opin. Psychol.* 16, 128–133. doi: 10.1016/j.copsyc.2017.04.016
- Dodd, K. D., & Newans, T. J. (2018). Talent identification for soccer: physiological aspects. *J.Sci. Med. Sport* 21, 1073–1078. doi: 10.1016/j.jsams.2018.01.009
- Faber, I. R., Pion, J., Munivrana, G., Faber, N. R., Maria, W. G., & Nijhuis-Van der, S. (2017). Does a perceptuomotor skills assessment have added value to detect talent for table tennis in primary school children? *J. Sports Sci.* 36, 2716–2723. doi: 10.1080/02640414.2017.1316865
- Ford, P. R., Bordonau, J. L. D., Bonanno, D., Tavares, J., Groenendijk, C., Fink, C., et al. (2020). A survey of talent identification and development processes in the youth academies of professional soccer clubs from around the world. *J. Sports Sci.* 38, 1269–1278. doi: 10.1080/02640414.2020.1752440
- Gledhill, A., Harwood, C., & Forsdyke, D. (2017). Psychosocial factors associated with talent development in football: a systematic review. *Psychol. Sport Exerc.* 31, 93–112. doi: 10.1016/j.psychsport.2017.04.002
- Haugaasen, M., Toering, T., & Jordet, G. (2014). From childhood to senior professional football: a multi-level approach to elite youth football players' engagement in football-specific activities. *Psychol. Sport Exerc.* 15, 336–344. doi: 10.1016/j.psychsport.2014.02.007
- Höner, O., & Feichtinger, P. (2016). Psychological talent predictors in early adolescence and their empirical relationship with current and future performance in soccer. *Psychol. Sport Exerc.* 25, 17–26. doi: 10.1016/j.psychsport.2016.03.004
- Joseph, B., Nick, W., & Jörg, S. (2019). A proposed conceptualization of talent in sport: the first step in a long and winding road. *Psychol. Sport Exerc.* 43, 27–33. doi: 10.1016/j.psychsport.2018.12.016
- Lai, Y. L., & Ishizaka, A. (2020). The application of multi-criteria decision analysis methods into talent identification process: a social psychological perspective. *J. Bus.Res.* 109, 637–647. doi: 10.1016/j.jbusres.2019.08.027
- Li, S. S., Chen, L., Wu, Q. J., Xin, S., & Chen, Z. C. (2021). The behavior model of psychological contract between sports teachers and undergraduate students in China. *J. HoLeis. Sport Tour. Educ.* 28, 100300. doi:10.1016/j.jhlste.2021.100300
- Mann, D.L.; Deghansai, N.; and Baker, J. (2017). Searching for the elusive gift: advances in talent identification in sport. *Current Opinion in Psychology*, 16, 128- 133.

- Norikazu, H., & Taigo, S. (2016). Two-year changes in anthropometric and motor ability values as talent identification indexes in youth soccer players. *J. Sci. Med. Sport* 19, 158–162. doi: 10.1016/j.jsams.2015.01.004
- Pena, F. (2017). The Motivational Profile of Individual Practitioners of Sports Performance. *Procedia - Social and Behavioral Sciences*, 84, 1646–1650.
- Platvoet, S. W. J., Elferink-Gemser, M. T., Baker, J., & Visscher, C. (2015). Physical education teachers' perceptions of sport potential: development of the scale for identification of sport potential (SISP). *Ann. Res.Phys. Act. Sport* 6, 63–79. doi: 10.14195/2182-7087\_6\_4
- Prieto-Ayuso, A., Pastor-Vicedo, J. C., González-Víllora, S., and Fernández-Río, J. (2020). Are physical education lessons suitable for sport talent identification? A systematic review of the literature. *Int. J. Environ. Res. Public Health* 17, 965. doi: 10.3390/ijerph17061965
- Slimani, M.; and Nikolaidis, P.T. (2017). Anthropometric and physiological characteristics of male Soccer players according to their competitive level, playing position and age group: a systematic review. *Journal of Sports Medicine and Physical Fitness*, 59(1), 141-163.