



Athletes with Intellectual Impairments and High Performance in Tokyo Paralympic Games: A Classification-Related Issue



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Abbreviations: PI: Physical Impairment; VI: Visual Impairments; II: Intellectual Impairments; IPC: International Paralympic Committee; INAS: International Sports Federation for Persons with Intellectual Disability; ITTF: International Table Tennis Federation; TTST: Table Tennis Specific Test

Introduction

Due to the severity of COVID-19 sweeping across the world, a lot of international sporting events in 2020 had been cancelled or postponed. The most famous international sporting events, such as Tokyo Olympic and Paralympic Games, have been moved to July and August 2021 respectively. In the 2021 Paralympic Games, around 4400 elite athletes with physical impairment (PI), visual impairments (VI), and intellectual impairments (II) through serious qualification processes will be included and compete in 22 sports and 539 medal events [1]. Athletes with PI and VI may participate in 19 and 9 sports respectively, in a total of 520 medal events; but athletes with II can only participate in 3 sports (athletics, swimming and table tennis), 19 medal events in total [1]. Clearly, we may ask a critical question: Why do athletes with II only participate in 3 sports? Plus, a mere 150 athletes with II in the Tokyo Paralympic Games compared to over 4200 athletes with PI and VI? One of the main issues is how athletes with II in different sports can be classified fairly and scientifically. The historical development in athletes with II and sport classification influenced the progression and also created controversy.

Classification in Disability Sport is Essential

Classification in disability sport provides a structure for fair competition. According to the International Paralympic Committee (IPC) classification guide in 2015, athletes competing in para-sports have an impairment that leads to a disadvantage in competition. Thus, a fair classification system has to be developed to reduce the impact of impairments and severities on sport performance, and to determine the success of an athlete through

training, fitness, power, endurance, technical and tactical abilities, and psychological factors [2-4]. Due to the different types of impairments and participation in different sports, sport-specific classification systems should be developed to group eligible athletes into sport classes to ensure fair competition based on the activity limitation of athletes in a certain sport [2,4]. The outcome of disability sport classification is to offer equal opportunities for athletes with impairments and also maintain fair competition [3].

Complexity of Current Classification for Athletes with II

The nature of PI, VI and II is significantly different on the impact of sport performance. The complexity of PI in different sports has been recognized for several decades. Gradually, sport-specific classification systems for athletes with PI have been developed and modified based on practical experience and scientific evidence [4]. On the other hand, the VI classification system has been a more medical-based classification system depending on the visual abilities affected by eye structure, optical nerve or the part of brain controlling vision, and its application for different sports has been quite stable since the 1992 Paralympic Games [4]. Comparing with the development of PI and VI classification systems, the beginnings of the II classification system was a medical-based system following with the proof of athletes with II by national medical doctors or psychologists. The International Sports Federation for Persons with Intellectual Disability (INAS) checks the documents submitted by the national organizations to confirm the eligibility of athletes with II. After approved by INAS, athletes

with II are registered to attend the international sporting events organized by INAS. Intellectually disabled athletes competed at the 1996 Paralympic Games in Atlanta under the recognition of IPC. However, a notorious scandal related to classification in basketball players with II appeared at the 2000 Paralympic Games in Sydney [5,6]. Ten out of twelve Spanish players in the basketball team had not undergone medical tests to meet the criteria of II, including an IQ of no more than 75, the behaviors and characteristics of people with II, and II recognized under age 18 years old [7]. After the detailed investigation by IPC, athletes with II were not included at the 2004 Athens and 2008 Beijing Paralympic Games mainly due to the difficulties in determining the eligible athletes with II with a reliable classification system [7,8]. However, the decision had a huge impact on the progression of athletes with II at the highest level of disability sport, i.e., Paralympic Games. Through the limited period of athletes with II competing at the Paralympic Games, Burns [7] stated that the scientific evidence to prove the eligible people with II in different sports were urgently needed to include actual athletes with II [7]. Able-bodied athletes pretending II should be excluded and criticized; yet they penalized the actual top athletes with II to lose opportunities to compete in the Paralympic Games [8]. Even for people with borderline II, they need to be classified to meet the minimal impairment criteria in each sport [2].

Evidence-Based Classification for II Sports is Needed

Athletes with II typically have difficulties with pattern recognition, sequencing, and working memory or having slow choice reaction time which may impact skills, tactics or sport performance [2,7]. IPC introduced the sport intelligence tests to identify athletes with II in 2009 in order to prepare for inclusion of athletes with II at the 2012 London Paralympic Games. However, when the tests were conducted, athletes were asked to do their best to ensure the correctness of the testing results. When intellectually impaired athletes were evaluated, the sensitivity of testing results was high. However, when athletes without II would like to attend the sporting events for athletes with II, how can IPC identify the intentional misrepresentation or cheating in the cognitive test? The standardized approach of previous classification systems for II in all sports had demonstrated the weakness and limitation without considering the sport-specific needs and components. Therefore, international swimming, athletics, and table tennis organizations started to develop the sport-specific evaluations to quantify the sport performance during the classification process and identify the consistency between classification and competition if they would like to include athletes with II in fair competitions. To reach the above purpose, for example, the International Table Tennis Federation (ITTF) developed the table tennis specific test (TTST) for players with II in 2010 following the extensive empirical study. TTST with the 3S (i.e., speed, spin, and spot) and 3C (i.e., control, consistency, and change) principles and the related techniques such as service, service return, and different basic skills has been evaluated its validity to reveal the table tennis skills and abilities of players with II [9-11]. The four

stages to classify players with II, (a) reaching eligible criteria in INAS, (b) sport intelligence tests, (c) TTST, and (d) observation of competition, were used to identify II much clearly although the whole classification processes become more complicated [12]. Athletics and swimming organizations may have the similar developmental processes in their own sport classification for athletes with II. The sport-specific needs have been used during classification for athletes, such as running pacing skill in athletics [13] and stroke rate analysis in swimming [14]. This approach seems to reveal the essential direction to develop its own sport-specific classification. However, most sports are still far-behind in the development of the evidence-based classification. Therefore, athletes with II wishing to attend other sports aside swimming, athletics, and table tennis still need to wait to join the Paralympic Games. Although elite athletes with II may have rights to participate in Paralympic Games, undoubtedly, the fairness of classification is the essential element in disability sports. The scientific experts and classifiers in different sports need to work together to assist systematic sport-specific classification system for athletes with II. Under well development and evidence support, we may expect that more sports will include elite athletes with II in the future Paralympic Games. More elite athletes with II will participate in more sports and medal events and they will be recognized for their top levels of sport performances. Under this scope, the public will have more opportunities to watch the high performance of athletes with II in different sports in the near future.

Recommendations and Directions

Several studies have shown that people with II may benefit to enhance their quality of life through sport participation and physical activity [15]. Elite athletes with II can demonstrate high performance in international events through proper training and deliberate practice in sports [16]. Due to the limitation of cognitive functioning, however, top athletes with II may have difficulties to compete with best able-bodied athletes like the Olympic Games and international major sporting events. Fair sport-specific classification systems should be developed and applied to athletes with II to offer similar opportunities for them to show their sporting performances in the international sporting platform. Through the explanation in this manuscript, it is clear to demonstrate the classification issue in different II sports should be carefully considered and examined through proper empirical research. After improvement of sport-specific classification systems with evidence-based practices and avoiding the abled-bodied people in II sports, we expect that the progression of II sports and more people with II in sport participation will be in the bright Paralympic movement. Let us watch the fantastic performance of top athletes with II and celebrate their achievements at the 2021 Tokyo Paralympic Games.

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References

1. International Paralympic Committee (2021) Tokyo 2020 Paralympic Games: Qualification regulations. Bonn, Germany.
2. International Paralympic Committee (2015) Explanatory guide to Paralympic classification: Paralympic summer sports. Bonn, Germany.
3. Vanlandewijck Y, Chapel R (1996) Integration and classification issues in competitive sports for athletes with disabilities. *Sport Science Review* 5: 65-88.
4. Tweedy SM, Vanlandewijck YC (2011) International Paralympic Committee position stand: Background and scientific principles of classification in Paralympic sport. *British Journal of Sports Medicine* 45(4): 259-269.
5. Tomlinson S (2013) Man that led shameful Spanish basketball team who pretended to be disabled to win Paralympic gold found guilty of fraud. *Mail Online*, 14 Oct 2013. Retrieved 12.06.2021 from: <http://www.dailymail.co.uk/sport/othersports/article-2459172/Spanish-basketball-team-pretended-disabled-win-Paralympic-gold-guilty-fraud.html#ixzz4b-7Nc6tdW>.
6. Van Gilder Cooke S (2012) How the Paralympics is welcoming back intellectually impaired athletes 12 years after cheating scandal. *Time*, 29 August 2012. Retrieved 12.06.2021 from: <http://olympics.time.com/2012/08/29/how-the-paralympics-is-welcoming-back-intellectually-impaired-athletes-12-years-after-cheating-scandal>.
7. Burns J (2015) The impact of intellectual disabilities on elite sports performance. *International Review of Sport and Exercise Psychology* 8(1): 251-267.
8. Kwon E, Block ME (2012) Athletes with intellectual disabilities and the Paralympics. *Palaestra* 26(3): 25-27.
9. Van Biesen D, Mactavish J, Kerremans J, Vanlandewijck Y (2016) Cognitive predictors of performance in well-trained athletes with intellectual disability. *Research in Developmental Disabilities* 53: 377-390.
10. Wu SK (2010) Analysis of the table tennis specific test in classification for players with an intellectual disability. Manuscript submission to International Table Tennis Federation. Lausanne, Switzerland.
11. Wu SK, Vecko G, Burchell A, Verspeelt N, Stefak J (2011) Development of table tennis specific classification system for players with intellectual disabilities: A pioneering work. 2011 VISTA conference, Bonn, Germany.
12. International Table Tennis Federation (2018) Classification Rules for ITTF Para Table Tennis. Lausanne, Switzerland.
13. World Para Athletics (2018) World Para Athletics classification rules and regulations. Bonn, Germany.
14. World Para Swimming (2018) World Para Swimming classification rules and regulations. Bonn, Germany.
15. Bartlo P, Klein PJ (2011) Physical activity benefits and needs in adults with intellectual disabilities: Systematic review of the literature. *American Journal on Intellectual and Developmental Disabilities* 116(3): 220-232.
16. Williams AM, Ford PR, Hodges NJ, Ward P (2018) Expertise in sport: Specificity, plasticity, and adaptability in high-performance athletes. In KA Ericsson, RR Hoffman, A Kozbelt, AM Williams (Eds), *The Cambridge handbook of expertise and expert performance* (pp. 653-673). Cambridge, UK: Cambridge University.



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