Himalayan J. Soc. Sci. & Humanities ISSN: 0975-9891 https://doi.org/10.51220/hjssh.v20i1.18
Vol. 20, (2025) 141-145

A Comparative Study of Mental Toughness among Para Sports Persons of Different Games

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Received: 21.10.2025; Revised: 27.12.2025; Accepted: 28.12.2025

Abstract: This study was designed to assess mental toughness among national level para sports persons belonging to different games. For the purpose of this present study, a total of 90 male National Level para sports persons belonging to the different games (30 Para Athletics, 30 Para Powerlifting, and 30 Para Swimming) were selected as participants by using a systematic random sampling technique. The subjects age ranged between 18 to 26 years. The subjects who were participating in the national championship in their respective games were contacted, and data were collected from the different venues. The mental toughness questionnaire of Tiwari and Sharma (2006) was administered. The results of the present study indicated that there was a significant difference among male athletes, powerlifters, and swimmers in para sports in their mental toughness attributes. The post hoc analyses of the data revealed that there is a significant difference in mental toughness between male para sports persons of athletics and powerlifting (MD=-14.03) (p=0.00), Swimming and Athletics (MD=9.77) (p=0.01), which are greater than the required value to be significant at the 0.05 level of significance. It is also revealed that there was no significant difference in mental toughness between male para powerlifters and swimmers (MD=4.27) (p=0.22), as the mean difference is less than the required value to be significant at the 0.05 level. It was concluded that the male para powerlifters were found mentally tougher than the para swimmers and para-athletes.

Keywords: Mental Toughness; Para Athletics; Para Powerlifting; Para Swimming; Sports Persons.

Introduction

In recent years, the recognition and participation of para-athletes in National and International sporting events have grown substantially, reflecting greater societal acceptance and institutional support for disability sports (Brittain 2016; Pullen et al 2021). This progression has shifted the focus from solely physical training and rehabilitation toward a more holistic approach that includes psychological determinants of performance.

Paralympic athletes frequently encounter a range of obstacles that extend beyond their physical impairments, including limited accessibility to sports facilities, inadequate training resources, societal stigma, and ongoing personal health challenges (Dehghansai et al 2021; Jaarsma et al 2014). These external and internal barriers can hinder both participation and performance. However, in high-performance settings, para-athletes frequently surpass expectations due to their exceptional resilience, tenacity, and competitive drive. This capacity to overcome adversity highlights the crucial role of mental toughness in their athletic development and success (Cowden 2016; Martin 2013). As such, understanding and fostering mental toughness in Paralympic athletes is essential to support their long-term performance and well-being.

This psychological attribute is especially vital for para-athletes, who often contend with intensified physical, psychological, and environmental stressors (Martin 2013). For them, mental toughness

becomes a cornerstone for coping with adversity and achieving excellence in their sport. Therefore, understanding and accurately assessing mental toughness in para-athletes is essential for designing targeted psychological training and support systems, ultimately enhancing both their performance and overall well-being.

Despite the growing visibility and accomplishments of para-athletes on national and international stages, a notable research gap persists concerning their psychological attributes, particularly mental toughness. Much of the existing literature in sport psychology remains focused on able-bodied athletes, often failing to account for the distinct mental demands and lived experiences of athletes with disabilities (Martin 2013; Macdougall et al. 2016). As para-athletes confront multifaceted challenges—ranging from physical impairments and social stigma to limited accessibility and representation—their psychological resilience emerges as a critical determinant of sustained performance and well-being (Purdue and Howe 2012; Jaarsma et al. 2014).

Purpose

This study was designed to assess mental toughness among Para Sports Persons belonging to different games.

Methodology

For the purpose of this present study, a total of 90 male para sports persons belonging to the different games (30 Para Athletics, 30 Para Powerlifting, and 30 Para Swimming) were selected for the study. The subject's aged ranged between 18 to 26 years. The participants were playing at the national level was selected. The mental toughness questionnaire of Tiwari and Sharma (2006) was administered. The data were collected from different venues where the national championship was held.

Tools used for data collection

The mental toughness questionnaire of Tiwari and Sharma (2006) was administered. The questionnaire consists of 48 statements. These 48 statements are further divided into 6 sub-scales, namely: Self Confidence, Attention Control, Motivation, Goal Setting, Visual and Imagery, and Attitude Control, which were designed to measure factors that reflect the mental toughness of a sports person.

Results: -

The mean and standard deviation of Athletics, Powerlifting, and Swimming male para sports persons on mental toughness are 191.03 ± 17.35, 205.07 ± 11.74, and 200.80 ± 9.61, respectively (Table 1)

Table 1: Mean and Standard Deviation on Mental Toughness among Male Para Sports Persons Belonging to Selected Different Games

Games	N	Mean	S.D.	S. E	Min.	Max.
Athletics	30	191.03	17.35	3.17	161.00	221.00
Powerlifting	30	205.07	11.74	2.14	185.00	227.00
Swimming	30	200.80	9.61	1.75	180.00	216.00

It is observed that, there is a significant difference among male athletics, powerlifting, and swimming para sports persons in relation to mental toughness, as obtained F ratio is 8.77, which is greater than the tabulated value (3.09) required for F ratio to be significant at 0.05 level with (2, 87) degree of freedom. It indicates that there is a significant difference in Mental Toughness among Athletics, Powerlifting, and Swimming male Para Sports Persons (Table 2).

Table 2: One-way ANOVA on Mental Toughness among Male Para Sports Persons Belonging to Selected Different Games

Source of Variances	Sum of Square	df	Mean Sum of Square	F	Sig.
Between Groups	3,105.27	2.00	1,552.63	8.77*	0.00
Within Groups	15,401.63	87.00	177.03		
Total	18,506.90	89.00			

*Tab F 0.05 (2, 87) = 3.09

A significant difference is observed in mental toughness between male para sports persons of athletics and powerlifting games (MD=-14.03) (p=0.00), Swimming and Athletics games (MD=9.77) (p=0.01), which are greater than the required value to be significant at the 0.05 level of significance (Table 3).

Table 3: Post-hoc mean comparison on Mental Toughness among Male Para Sports Persons Belonging to Selected Different Games

Games (I)	Games (J)	M.D. (I-J)	S.E.	Sig.
Athletics	Powerlifting	-14.03*	3.44	0.00
	Swimming	9.77*	3.44	0.01
Powerlifting	Athletics	-14.03*	3.44	0.00
	Swimming	4.27	3.44	0.22
Swimming	Athletics	9.77*	3.44	0.01
	Powerlifting	4.27	3.44	0.22

*Significant at the 0.05 level.

It is also revealed that there was no significant difference in mental toughness between male para sports persons of powerlifting and swimming games (MD=4.27) (p=0.22), as the mean difference is less than the required value to be significant at the 0.05 level.

Observations and Discussion

The descriptive results showed that powerlifters scored the highest mean value (M = 205.07, SD = 11.74) on mental toughness, followed by swimmers (M = 200.80, SD = 9.61), while athletes recorded the lowest mean value (M = 191.03, SD = 17.35). This pattern implies that para powerlifters possess comparatively greater psychological resilience and determination than athletes and swimmers. Strength dominated sports such as powerlifting often demand intense focus, pain tolerance, and the ability to overcome repeated physical challenges, which may explain the higher mental toughness levels (Gucciardi et al 2009; Clough & Strycharczyk 2012).

The present study aimed to compare mental toughness among male para sports persons belonging to athletics, powerlifting, and swimming games. The findings indicated a statistically significant difference in the mental toughness of para sports persons from different games ($F = 8.77$, $p < 0.05$).

This suggests that the type of sport influences the level of mental toughness among para sports persons.

The post-hoc analysis further clarified the group differences. Significant differences were found between para sports persons of athletics and powerlifting games (MD = -14.03, p = 0.00) and between athletics and swimming games (MD = 9.77, p = 0.01). These findings indicate that para athletes demonstrated significantly lower mental toughness compared to para powerlifters and para swimmers. However, no significant difference was found between powerlifters and swimmers (MD = 4.27, p = 0.22), suggesting that these two groups develop relatively similar levels of mental toughness. This similarity might be attributed to the individual and competitive nature of both sports, which require high levels of persistence, self-discipline, and mental focus (Jones, Hanton, & Connaughton, 2007).

The lower mean values observed in para athletics group may be due to the diversity of events in this sport, where the demands for mental toughness vary significantly depending on the discipline (e.g., sprinting vs. long-distance events). Moreover, endurance-based athletics games may involve greater physical fatigue and stress, potentially influencing athletes' psychological consistency (Nicholls et al 2009). In contrast, swimming and powerlifting are more specialized in nature, allowing athletes to develop sport-specific coping strategies that enhance mental toughness (Mahoney et al 2014).

These findings are consistent with earlier research highlighting that the type of sport and its demands significantly affect the development of psychological attributes such as mental toughness (Cowden 2017; Weinberg & Gould 2019). Furthermore, the results support the view that mental toughness is not only a trait but also a skill developed through exposure to specific training environments and competitive experiences (Gucciardi 2017).

Working against heavy resistance consistently for improvement and stabilization of performance in powerlifting may be attributed as one of the significant reasons for having higher mental toughness than other two game para sports persons.

Conclusions: -

Based on the analysis of data and results obtained, the following conclusions have been drawn.

1. Based on the findings, the present study demonstrates that para powerlifters and swimmers exhibit higher mental toughness compared to male para-athletes.

2. It is also concluded that exposure to a tougher load structure oriented sports results in a positive impact upon the mental toughness of para sports persons.

References:

Brittain I (2016). *The Paralympic Games Explained*. Routledge. https://doi.org/10.4324/9780203885567.

Clough P & Strycharczyk D (2012). *Developing mental toughness: Improving performance, wellbeing and positive behaviour in others*. Kogan Page.

Cowden R G & North-West University Institute of Psychology and Well-being. (2017). Mental Toughness and Success in Sport: A review and prospect. In *The Open Sports Sciences Journal* (Vols. 1–14) . https://doi.org/10.2174/1875399X01710010001.

Dehghansai N, Lemez S, Wattie N & Baker J (2017). Training and development of Canadian wheelchair basketball players. *European Journal of Sport Science*, *17*(5), 511–518. https://doi.org/10.1080/17461391.2016.1276636

Daniel F. Gucciardi (2010), Mental Toughness: Progress and Prospects (2010), http://dx.doi.org/10.1016/j.copsyc.2017.03.010

Jaarsma,E A, Dijkstra P U, Geertzen J H B & Dekker R (2014). Barriers to and facilitators of sports participation for people with physical disabilities: A systematic review. *Scandinavian Journal of Medicine and Science in Sports*, *24*(6), 871–881. https://doi.org/10.1111/sms.12218.

Jones Graham; Hanton Sheldon; Connaughton Declan (2007). *A Framework of Mental Toughness in the World's Best Performers. The Sport Psychologist, 21(2), 243- 264 . https://doi.org/10.1123/tsp.21.2.243*.

Macdougall H, O'Halloran P, Sherry E & Shields N (2015). Needs and Strengths of Australian Para-Athletes: Identifying their Subjective Psychological, Social, and Physical Health and Well-Being. *The Sport Psychologist*, *30*(1), 1–12. https://doi.org/10.1123/tsp.2015-0006.

Mahoney J W, Gucciardi D F, Ntoumanis N & Mallet C J (2014). Mental toughness in sport: motivational antecedents and associations with performance and psychological health. *Journal of Sport and Exercise Psychology*, *36*(3), 281–292. https://doi.org/10.1123/jsep.2013-0260.

Martin J J (2013). Benefits and barriers to physical activity for individuals with disabilities: a social-relational model of disability perspective. *Disability and Rehabilitation*, *35*(24), 2030–2037. https://doi.org/10.3109/09638288.2013.802377.

Nicholls A R, Polman R C, Levy A R & Backhouse S H (2007). Mental toughness, optimism, pessimism, and coping among athletes. *Personality and Individual Differences*, *44*(5), 1182–1192. https://doi.org/10.1016/j.paid.2007.11.011.

Pullen E, Jackson D & Silk M (2019). (Re-)presenting the Paralympics: Affective Nationalism and the "able-disabled." In *Communication & Sport*. https://doi.org/10.1177/2167479519837549.

Purdue D E & Howe P D (2012). Empower, inspire, achieve: (dis)empowerment and the Paralympic Games. *Disability & Society*, *27*(7), 903–916. https://doi.org/10.1080/09687599.2012.695576.

Weinberg R S & Gould D (2019). *Foundations of Sport and Exercise Psychology* (7th ed.). Human Kinetics.