

# A Comparative Study of Mental Toughness Between Beginners and Experienced Cyclist From the Goa

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## Abstract

Sports psychology focuses on the mental and emotional aspects of athletic performance, helping cyclist players enhance their performance by improving their focus and concentration, enhancing confidence, and managing stress and anxiety. The purpose of the study was, to compare the mental toughness of beginners & experienced cyclist from the state of Goa. For which 80 beginners & 80 experienced cyclists were selected using purposive sampling technique. Descriptive comparative method was used to find out the difference between beginners & experienced cyclist. Sports Mental Toughness Questionnaire (SMTQ) developed by (Michael Sheard, Jim Golby, and Anna van Wersh) were used to measure mental toughness. The collected data was statistically analyzed and the calculated mean and standard deviation of mental toughness male beginners & experienced cyclist were 36.99 ( $\pm 6.67$ ) and 37.78 ( $\pm 6.66$ ) respectively. In order to study the difference between beginners & experienced cyclist, Independent sample t- test was calculated. The calculated t-value for total mental toughness was 0.747. For degree of freedom 158, which shows that there is no significant difference at 0.05 level of significance ( $p=0.456$ )

**Keywords :-** Sports mental toughness, Sports psychology, male cyclist, stress and anxiety.

## 1. Introduction

Mental toughness is a key psychological component in athletic performance, especially in endurance sports such as cycling. It refers to an athlete's capacity to consistently perform under pressure, recover from failure, and stay focused despite physical and emotional challenges (Crust, 2007). While it is often assumed that mental toughness increases with experience, research increasingly suggests that this may not always be the case.

Some studies have shown that mental toughness is not solely developed through years of training or competition but can also be present in athletes at early stages of participation. Factors such as personality traits, life experiences, motivation, and coping mechanisms can contribute significantly to an individual's mental resilience, regardless of their experience level (Coulter, Mallett, & Gucciardi, 2010). In fact, beginner athletes may possess similar levels of mental toughness if they have developed these traits outside of sport or through other challenging environments (Jones & Parker, 2018).

In the context of cycling, the assumption that more experienced athletes are mentally tougher may not hold true for all populations. Regional and local factors, such as access to coaching, competitive

exposure, and personal commitment, may influence mental toughness more than years of participation alone. Despite the growth of cycling in Goa, little research has explored how mental toughness varies between different levels of experience within this community.

Therefore, this study aims to compare the mental toughness of beginner and experienced cyclists from the state of Goa. Based on emerging literature, it is expected that there may be no significant difference in mental toughness between the two groups, challenging the traditional belief that experience directly correlates with psychological resilience.

## 2. Material & methods

**Method:** Descriptive comparative method was used to compare the mental toughness between beginners & experienced cyclist from the state of Goa.

**Participants:** For this study, a total of 160 (80 beginners & 80 experienced) male cyclist aged group of (17-25) from Goan cycling clubs were participated in this study who were selected by purposive sampling technique.

**Variable & tool:** In this study, Mental Toughness was measure by Sports Mental Toughness Questionnaire (SMTQ) which was developed by (Michael Sheard, Jim Golby, and Anna van Wersh) in 2009. ). It includes 14 items rated on a 4-point Likert scale, from 1 (not at all true) to 4 (very true), minimum score will be 14 & maximum score will be 56, With higher scores indicating greater mental toughness.

## 3. Results

The purpose of the research was to compare the mental toughness among (80 beginners) & (80 experienced) male cyclist, for which to measure Sports Mental Toughness Questionnaire (SMTQ) was used and collected data was analysed for Descriptive statistics.

**Table No.1**

<b>Descriptive statistics and Independent sample t-test of beginners &amp; experienced cyclist</b>				
<b>Group</b>	<b>Mean (±S.D)</b>	<b>t</b>	<b>df</b>	<b>Sig.(2-tailed)</b>
Beginner cyclist (80)	36.99(±6.67)	0.747	158	0.456
Experienced cyclist (80)	37.78 (±6.66)			

From the above table no.1, It can be seen that calculated mean of scores of Mental Toughness of 80 beginner & 80 experienced are 36.99 & 37.99 with standard deviation 6.67 & 6.66 respectively. In order to compare 80 beginner & 80 experienced cyclist, Independent sample t-test was computed . Mean difference & calculated t valve are 0.788 & 0.747 respectively for degree of freedom 158. It shows that, there is no significant difference at 0.05 level of significance (p=0.456)

The analysis of data collected through Sports Mental Toughness Questionnaire (SMTQ) revealed that there is no significant difference between beginners & experienced cyclist from the state of Goa.

#### 4. Discussion

The analysis of data collected using Sports Mental Toughness Questionnaire (SMTQ) revealed that there is no significant difference between beginners & experienced cyclist from the state of Goa. This results align with the findings of Coulter, Mallett, and Gucciardi (2010), who suggested that mental toughness may not necessarily be a function of experience alone, but rather the product of individual psychological traits and contextual factors. Similarly, Crust (2007) proposed that although experience contributes to mental toughness, it is not the sole determinant; other variables such as personality, support systems, and motivation play crucial roles. Alike, Jones and Parker (2018) also found that cyclists with higher mindfulness and coping strategies had greater mental toughness, even if they were not highly experienced. These internal skills, rather than experience, seemed to matter more in building resilience. In contrast, several studies support the idea that mental toughness tends to develop over time with increased athletic exposure and competitive experience. For instance, Gucciardi et al. (2011) argued that experience in high-pressure competitive settings is a key factor in shaping mental toughness. Haugen et al. (2016) observed that elite cyclists (who are usually more experienced) performed better in pressure situations because of their higher mental toughness. These findings imply that competitive exposure strengthens psychological readiness. Additionally, Connaughton, Hanton, and Jones (2010) explained that experienced athletes often go through structured mental training, including visualization and goal setting, which gives them an edge in maintaining focus and confidence. In this view, beginners may not yet have had these opportunities, suggesting that their toughness should be lower.

#### 5. Conclusion

It is concluded that level of participation does not determine mental in Goan cyclist.

#### References

1. Connaughton, D., Hanton, S., & Jones, G. (2010). The development and maintenance of mental toughness in the world's best performers. *The Sport Psychologist*, 24(2), 168–193. <https://doi.org/10.1123/tsp.24.2.168>
2. Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: Perceptions of players, parents, and coaches. *Journal of Sports Sciences*, 28(7), 699–716. <https://doi.org/10.1080/02640411003734085>
3. Crust, L. (2007). Mental toughness in sport: A review. *International Journal of Sport and Exercise Psychology*, 5(3), 270–290. <https://doi.org/10.1080/1612197X.2007.9671836>
4. Haugen, T., Reinboth, M., Hetlelid, K. J., Peters, D. M., & Høigaard, R. (2016). Mental toughness moderates social loafing in cycle time-trial performance. *Research Quarterly for Exercise and Sport*, 87(3), 305–310. <https://doi.org/10.1080/02701367.2016.1149144>
5. Jones, G., Hanton, S., & Connaughton, D. (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>
6. Jones, M. I., & Parker, J. K. (2018). Mindfulness mediates the relationship between mental toughness and pain catastrophizing in cyclists. *European Journal of Sport Science*, 18(6), 872–881. <https://doi.org/10.1080/17461391.2018.1478450>