



The Relationship between Perfectionism and Mental Toughness Among Athletes

Nazia Nisar¹, Atif Rasool², Umara Sameer³, Ayesha Rehman⁴ & Sana Ameen⁵

¹MS Clinical Psychology Scholar, Department of Clinical Psychology, The Superior University Lahore, Punjab, Pakistan, Email: su92-mscpw-f23-076@superior.edu.pk

²Lecturer, Department of Clinical Psychology, The Superior University Lahore, Punjab, Pakistan, Email: atif.rasool@superior.edu.pk

³MS Clinical Psychology Scholar, Department of Clinical Psychology, The Superior University Lahore, Punjab, Pakistan, Email: su92-mscpw-f23-027@superior.edu.pk

⁴MS Clinical Psychology Scholar, Department of Clinical Psychology, The Superior University Lahore, Punjab, Pakistan, Email: su92-mscpw-f23-080@superior.edu.pk

⁵MS Clinical Psychology Scholar, Department of Clinical Psychology, The Superior University Lahore, Punjab, Pakistan, Email: su92-mscpw-f23-023@superior.edu.pk

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Corresponding Author:

Nazia Nisar

Email:

su92-mscpw-f23-076@superior.edu.pk



ABSTRACT

The purpose of this study is to explore the relationship between perfectionism and mental toughness among athletes. Athletes often face psychological pressures that can impact their emotional stability and mental resilience in high-performance sports environments. Perfectionism was able to push an athlete to be good, it can foster stress or burnout as well, even leading to the failure of the athlete. On the other hand, mental toughness helps athletes to concentrate, be strong, and composure when pressurized. A correlational research design was used in the study and the sample size was purposively composed of 150 athletes between and aged 18 and 37. There were two standardized self-report questionnaires completed (Perfectionism Performance Scale-Sport (PPS-S12) and Sports Mental Toughness Questionnaire (SMTQ-14). Descriptive statistics, Pearson correlation and a simple linear regression was used to analyze the data. The findings indicated a significant positive correlation between perfectionism and mental toughness. A regression analysis indicated that perfectionism was a significant predictor of mental toughness with 50.3 per cent being explained. It has implications for clinical and sports psychologist, coaches and trainers in creating interventions and training programs to add at least mental resilience. Future studies should discriminate between adaptive and male adaptive perfectionism to more clearly understand their distinctive contribute mental toughness. Limitation national and international athletes should have already had built in greater psychological strength through experience this might impact outcomes.

Introduction and Literature Review

Athletes play under very challenging situations, which involves long-term mental, emotional, and physical diligence. Either in individual or team competition, they regularly face pressures related to their performance, tough judgments by coaches and other people as well as self-imposed ideals of perfection. These stressors are physical, but more importantly, very psychological in nature and in some cases emotional well-being and mental well-being. This competitive character of sport has increased the significance of psychological features like mental toughness or ability to regulate emotions and perfectionism to predict resilience as well as athletic achievement.

As per the definition of World Health Organization (2021), an athlete has been described as a player who takes part in physical activity or sport at a competitive level and shows physical energy, stamina and mental preparation. Modern definitions have moved beyond the narrow definition of elite or professional athletes and nowadays refer to the person who receives systematized training and competes both nationally and internationally (Rojo-Ramos et al., 2024). Previous studies have indicated that high perfectionism is linked to bad self-esteem objectives, low motivation, and high chances of burnout (Gould, 1996; Gotwals et al., 2003; Madigan et al., 2016; Minichiello et al., 2024).

Perfectionism is a complex personality trait that is defined by seeking far too high a standard as well as being over harsh in self-evaluation (Froilan et al., 2024). It is usually conceptualized in two dimensions such as perfectionistic strivings and perfectionistic concerns. Studies on the Pakistani population also revealed the presence of significant relationships between perfectionistic concern and high sports anxiety scale (Ali, Khan, & Shah, 2020). Other results verify that perfectionism has adaptive and maladaptive pathways relying on regulatory and cognitive coping abilities of an athlete (Jowett, Hill, & Madigan, 2021).

Mental toughness (MT) is viewed as a complex psychological construct with cognitive, affective, and behavioural components (Connaughton and Hanton, 2009; Gucciardi, 2012, Rintaugu et al. 2022). It relates to enhanced resilience to stress, effective management of stress, and psychological health (Gerber et al., 2012). Clough et al. (2002) confirmed that mental toughness is made up of challenge subscales, which have to do with excelling in demanding circumstances, commitment (refusing to give up when under pressure), life, emotional control (high perceived control over the results of one's performance), confidence in one's ability, and interpersonal confidence (related to unshakeable faith in ability). Research has revealed that mental toughness is a robust predictor of performance in most human activities such as academics, management, and sports (McGeown et al., 2015). Mental toughness is referred to by athletes, coaches, sports psychologists, and sports commentators to describe an athlete's temperament and capacity to cope efficiently with adversity, stressors, and pressure in sport (Jones, 2002; Meggs et al., 2014).

Khan et al. (2021) undertook a study to determine the relationship between mental toughness and athletic performance focusing on gender disparities among corporate cricket players in Pakistan denominated as *Mental Toughness and Athletic Performance: A Gender Analysis of Corporate Cricket Players in Pakistan*. This research study was based in Pakistan and both of its levels of research were quantitative and correlational involving the stratified random sampling process. One hundred and seventy-six corporate cricket players participated out of which twenty-three were males, and one hundred and five were female with an age range of 14-43 years. Both Mental Toughness Inventory (MTI) and the Coach-Athlete Rating of Athletic Performance were also used to measure certain factors of mental toughness such as familiarity of tasks, self-efficacy, future

potential and mental self-concept, and performance output such as motivation, focus and team spirit. The results have indicated that the relations between athletic performance and mental toughness were significantly positive. In addition, the males in the sports industry far exceeded the result of female athletes in measure of mental competence and performance.

In order to investigate the role of psychological characteristics in the Pakistani context in terms of athletic performance, Ahmad et al. (2021) carried out the study, *Impact of Sport-Perfectionism and Self-Efficacy on Achievement Motivation and Sports Performance: A Case Study of Individual Differences of University Students* Ahmad et al. (2021). The time was the quantitative and correlational study carried out by surveying male athletes in District Lahore on the university level. There were unspecified but large sample size evaluated with Multidimensional Perfectionism Scale, Self-Efficacy Scale, and Achievement Motivation Scale. The hypothesized relations were tested by using descriptive statistics and regression analysis to analyze the data available. It was found that each of these factors, sport-perfectionism, and self-efficacy, positively and significantly influenced the achievement motivation and sports performance.

Chen et al. (2024), in their study "The Relationship Between Perfectionism and Sleep Quality in Athletes: The Mediating Role of Mental Toughness," conducted in China, explored how perfectionistic tendencies impact on athletes' sleep quality and whether mental toughness plays a mediating role. The researchers used a quantitative method, using self-report questionnaires to assess perfectionism, mental toughness, and sleep quality. The study sampled 208 Chinese athletes from different competitive sports disciplines. Findings indicate that perfectionistic concerns were significantly associated with poorer sleep quality. Importantly, mental toughness was found to partially mediate this relationship, suggesting that athletes with higher mental toughness were better able to buffer the negative effects of perfectionistic concerns on sleep. This study highlights the protective role of mental toughness in mitigating the psychological costs of maladaptive perfectionism in athletic populations.

Perfectionism and Mental Toughness in Athletes, Kurtulgel and Çepikkurt (2024) examined the connection between perfectionism and mental toughness among Turkish sports people. The research was based on a quantitative, correlational research design and it was conducted on a sample of 280 track and field athletes (105 females, 175 males) through Sport Multidimensional Perfectionism Scale and Sport Mental Toughness Questionnaire (SMTQ-14). Pearson correlation as well as canonical correlation analysis was used. It was explained that findings showed that there is a strong positive correlation between the adaptive aspects of perfectionism especially personal standards with mental toughness whereas the maladaptive perfectionism was connected with less mental toughness.

Theoretical framework

Hewitt and Flett's Multidimensional Perfectionism Model (1991)

According to Hewitt and Flett, perfectionism is a multidimensional personality construct that involves self-oriented, other-oriented perfectionism and socially prescribed perfectionism. Self-oriented perfectionism applies to a situation where people give themselves goals that are very ideal and consequently result to self-referential stress and worry. Other-oriented perfectionism entails having expectations on other parties to be perfect yet it kills interpersonal relationship, especially in team sports. Another aspect of perfectionism is socially prescribed perfectionism or the misperception that others have unrealistic expectations and can create a feeling of pressurizing

others and lead to fear of failure and emotional inability to stay composed. This model is best applied in sports, which presents a rather competitive environment where socially prescribed perfectionistic tendencies may be enhanced by scrutiny of the performance.

Gucciardi's Mental Toughness Development Model (2015)

Gucciardi offered an interactive and context-sensitive theory of mental toughness, stating that it is built up by a mixture of personalities, the environment, and previous life experiences. According to the model, mental toughness is no longer a fixed variable but can be developed and fomented with time through the exposure of challenges, feedback, and support mechanisms that include coaching and mentoring. These are self-awareness, regulation of emotions, goal establishment and training in resilience. Such a model is a compromise between trait-based and state-based views since it demonstrates that although certain individuals can be predisposed to mental toughness, it can be gained via deliberate efforts and favorable environments. This model has also been validated in sports psychology as recent studies confirm such claim with Sarkar and Fletcher (2021), who points out at the fact that psychological training regimes are effective in developing mental strength in both elite and amateur athletes.

Statement of the Problem

Athletes are under ongoing pressure to perform at a high level, and this can develop into perfectionistic tendencies. Although some perfectionism will enhance concentration and drive, it can also generate stress and emotional tension. Mental toughness, however, is needed to manage adversity and consistently perform to the best of one's ability. Even though the two constructs are crucial in sports psychology, the explicit link between perfectionism and mental toughness is not adequately examined in the context of Pakistan. Most of the existing literature examines the variables in isolation or among Western samples. Thus, this study examines how perfectionism affects mental toughness among Pakistani athletes to fill this significant research gap.

Research Objective

RO1: To assess the relationship between perfectionism and mental toughness among athletes.

RO2: To investigate whether perfectionism predict to mental toughness among athletes.

Research Question

RQ1: what are the relationship between perfectionism and mental toughness among athletes.

RQ2: How does perfectionism influence mental toughness among athletes?

Hypothesis

H1: There is a significant positive relationship between perfectionism and mental toughness among athletes.

H2: perfectionism significantly predict mental toughness among athletes.

Rationale of the Study

Perfectionism and mental toughness are two key psychological characteristics that drive athletic performance, motivation, and pressure resilience. Although worldwide research has investigated the relationship between these variables, a majority of research is focused within Western nations. For the South Asian context, especially in Pakistan, this relationship is largely unexplored. Players in Pakistan tend to experience environmental and cultural stressors including resource limitations, social pressure, and absence of psychological assistance, which can influence how perfectionism contributes to mental strength. While some local studies have touched on individual characteristics such as anxiety or self-esteem, few have put the direct link between perfectionism and mental toughness to an empirical test. This research fills that gap by examining how perfectionistic tendencies are associated with psychological resilience in Pakistani athletes. It also offers culturally specific findings that can help develop effective mental training programs for sports.

Methodology

Participants

The sample was consisting of 150 athletes (both male and female), aged between 18 to 37 years, recruited from various sports squash, badminton, swimming, running weight lifter as national and international in Lahore and nearby regions. Purposive sampling was being used to select athletes actively engaged in competitive sports such as squash, badminton, swimming, running, table tennis and weight lifter etc.

Inclusion and Exclusion criteria

Inclusion Criteria

- It will involve only the individual sports athletes (e.g., swimmers, archers, weightlifters, table tennis, and badminton players).
- The athletes should possess at least 3 years of competitive experience in the field of sport.
- The participants should be actively engaged either at a national or the international level.
- There is an age criteria of 18 years to 37 years plus.
- The participants should be both willing and capable of signing the informed consent and filling in the questionnaires themselves.

Exclusion Criteria

- The athletes involved in team athletes (e.g. footballers, cricketers, volleyball players) shall not participate in the study.
- Persons who have physical or psychological disabilities, which obstruct performance or understanding of learning resources will be excluded.
- Inactive or retired people cannot.

Procedure

After obtaining ethical approval from the university's research committee, permission was being sought from coaches and sports authorities for data collection. Athletes who meet the inclusion criteria were being approached in person. After explaining the purpose of the study, informed consent was being obtained. The questionnaires were being administered either individually or in small groups, depending on availability. Participants were being assured of confidentiality and the voluntary nature of participation.

Data Analysis

SPSS version 27 was used to analyze data. Sample characteristics were reported according to descriptive statistics. The correlation between perfectionism and mental toughness was measured with Pearson's product-moment correlation. To investigate the predictive capacity perfectionism on mental toughness, a simple linear regression was implemented.

Ethical Consideration

The priority of ethical concerns was maintained during the research. Author's permission was take to use the scales. Permission for data collection was also take from Supervisor. Informed consent was also take from participants. Any psychological or physical harm avoided during the data collection or after the research. Confidentiality of the data maintained until a crucial need to explore data again for research purposes. The participants were allowed to withdraw from study at any time they want.

Result

Table 1: Psychometric properties of scales used in the study (N=150)

Variables	N	M	S.D	K	Skewness	Range
Perfectionism	150	3.2233	.53384	-.158	.054	2.92
Mental Toughness	150	2.5238	.47117	.187	.551	2.36

Note; N= Number of participants, M = Means, S.D = Standard Deviation, α = Cronbach's Alpha.

Table 1 showed that mean and standard deviation of all two variables. The Cronbach's Alpha value showed the reliability of both variables as .626 and .701 of between perfectionism and mental toughness.

Table 2 : Pearson Product Moment Correlation between Perfectionism and Mental Toughness.

Variables	Perfectionism	Mental Toughness
Perfectionism	1	.503**
Mental Toughness	.503**	1

** $p < 0.01$

Table 2 showed the significant positive correlation between perfectionism and mental toughness.

Table 3: Regression for Perfectionism and Mental Toughness among Athletes (N=150)

Predictor	B	SE	B	T	p value
Perfectionism	0.444	0.063	0.053	7.074	.001

Note; N = 150 ** $p < 0.01$

Table 3 shows the impact Perfectionism on Mental Toughness. The R^2 value of .503 revealed that the predictor variable explained 50.3% variance in the outcome variable with $F (50.04)$, $p < .001$. The findings revealed that perfectionism significant predicated mental toughness.

Discussion

The purpose of the current study was to examine the relationship between perfectionism and mental toughness among. The findings revealed a significant positive relationship between perfectionism and mental toughness. The findings indicate a significant relationship between perfectionism and mental toughness. According to the correlation and regression analysis, the findings provided moderate empirical support to the hypotheses.

The study found that there is a significant positive relationship between perfectionism and mental toughness among athletes. The findings of the present research reveal a significant positive relationship between perfectionism and mental toughness and perfectionism also predicts significant mental toughness. This evidence is in line with previous studies, such as Kurtulgel and Çepikkurt (2024), which found a positive correlation between adaptive perfectionism (personal standards) and mental toughness within Turkish athletes. Similarly, Hill et al. (2021) identified the both-factor structure of perfectionism and argued that perfectionistic strivings can be beneficial, and may foster psychological resistance and control, both characteristics of mental toughness. Additionally, Ahmad et al. (2021) also found a positive relationship between sport-perfectionism in Pakistani sportspersons and achievement motivation and sports performance, and this indirectly supported the association with mental resilience.

First limitation was that the study relied only on self-report responses there may be evoking biases. Second, limitation was lack of cooperation among some of athletes was also a limitation of this research, their fatigue and impatience in answering the questions due to large numbered questions; it can be got unreal and distorted answers by subject. Limitation national and international athletes should have already had built in greater psychological strength through experience this might impact outcomes. The generalizability of the existing findings would be tested with the help of different samples represented by the gender dimension, the type of sport (as well as team sports), the level of competition, and the origin characterized by the culture. It is advised that longitudinal designs should be used to understand the developmental relationship between perfectionism and mental toughness and examine the interaction as people are going through different training phases or competitive seasons. The results may be used to design sports psychologists and coaches to construct specific training mental methods solutions that promote adaptive perfectionism and advance resilience. The policy shapers and sports officials in Pakistan can capitalize on the findings to consider psychological support as an aspect of the athlete development mechanism.

Conclusion

This study explored the relationship between perfectionism and mental toughness among national and international athletes in Pakistan. The results indicated that there was a strong positive correlation between the two variables which implies that higher the level of perfectionism, higher is the level of mental toughness shown by athletes. Regression analysis showed that perfectionism at $p < 0.01$ was a good predictor of mental toughness and explained 50.3 percent of the variance of mental toughness. These findings emphasize the importance of adaptive perfectionism as the ability to bolster psychological resilience and make one competitive. Even though the sample involved only elite athletes, the results may be applicable to coaches, psychologists, and trainers who need to improve performance by using mental skills. In future studies, researchers ought to study various athlete populations and determine the unique effects adaptive and maladaptive perfectionism have on psychological outcomes in athletics.

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