

## Examining Resilience and Psychological Readiness Among Injured Football Players In Kerala: Implications For Return-To-Play And Performance

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Cite this paper as: Nisha Philip, Reena Joseph, Swathy K. K., Binu George Varghese, (2024) Examining Resilience And Psychological Readiness Among Injured Football Players In Kerala: Implications For Return-To-Play And Performance. *Frontiers in Health Informatics*, 13 (3), 8154-8166

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### ABSTRACT

*In competitive sports, psychological factors such as resilience and psychological readiness are pivotal for athletes, particularly in the context of injury recovery. This study explores the differences in resilience and psychological readiness among district and state-level football players in Kerala, utilizing a sample of 60 athletes aged 18 to 30. Employing standardized inventories, the research assesses the athletes' resilience and psychological readiness, aiming to elucidate their correlation with competitive levels. The findings reveal that state-level players demonstrate significantly higher resilience ( $M = 152.6$ ) and psychological readiness ( $M = 51.66$ ) compared to their district-level counterparts ( $M = 129.6$  and  $M = 41.18$ , respectively). These results underscore the critical role of psychological factors in the recovery process from injuries and highlight the necessity for tailored psychological support to bolster resilience and readiness among athletes across varying levels of competition. The implications of this study suggest that enhancing psychological resilience can lead to improved athletic performance and better coping mechanisms during recovery phases, thereby contributing to the overall well-being of athletes.*

**KEYWORDS:** Sports Psychology, Resilience, Psychological Readiness, Injury Recovery, Athletic Performance

### INTRODUCTION

The realm of competitive sports, especially high-contact disciplines like football, is witnessing a growing recognition of the intricate relationship between physical abilities and psychological resilience as key determinants of athletic excellence. While conventional approaches have predominantly emphasised physical training regimens and performance metrics, contemporary research illuminates the pivotal role of psychological factors, particularly resilience and mental readiness, in shaping athletes' recovery trajectories and overall performance outcomes. Resilience, conceptualised as the ability to adapt and rebound from adversity, holds particular significance for athletes confronting the inevitable challenges posed by injuries. Current literature suggests that resilient athletes are better positioned to surmount the psychological barriers associated with injury recovery, thereby enhancing their prospects of a successful return to play (RTP) (Bicalho et al., 2020; Wagstaff et al., 2018).

The impact of sports injuries on an athlete's mental state goes beyond physical harm. These injuries often trigger a series of emotional reactions, such as anxiety, apprehension about getting injured again,

and reduced confidence in one's abilities, which can substantially hinder recovery and athletic performance (Khalid et al. 2022; Li et al. 2019). For example, research conducted by McPherson et al. (2019) emphasised that an athlete's mental readiness to resume competitive activities is vital for their post-injury performance (Presley et al., 2021). Athletes with low psychological preparedness may experience uncertainty and lack of confidence, potentially leading to modified movement patterns and a higher likelihood of sustaining another injury (Lindanger et al., 2019).

This highlights the importance of incorporating psychological evaluations into rehabilitation programmes to ensure athletes are not only physically fit but also mentally equipped to handle the pressures of competition (Webster et al., 2019; Webster et al., 2018). Whilst there has been a growing body of research on resilience and psychological preparedness, a significant lacuna exists in the literature regarding the unique psychological hurdles encountered by injured footballers in Kerala. The majority of current studies have largely centred on Western societies, creating a substantial knowledge gap in comprehending how cultural and contextual elements shape resilience and psychological readiness among athletes in Kerala (Chmielewski and George, 2018; O'Connor et al., 2021).

This dearth of research is particularly alarming, considering Kerala's vibrant sporting heritage and the rising number of athletes engaging in competitive football. While recent research has delved into the psychological aspects of sports injuries across various settings, limited attention has been given to the distinct experiences of athletes in Kerala. For instance, Forsdyke et al. (2022) investigated the influence of perceived social support and anxiety on psychological readiness in football players, emphasising the significance of contextual elements in shaping recovery experiences (Truong et al., 2020). Nevertheless, the precise relationship between resilience and psychological readiness amongst injured footballers in Kerala remains ambiguous.

This investigation sought to address this crucial knowledge gap by examining resilience and psychological readiness in injured Kerala football players, thus contributing to a more refined understanding of how these psychological constructs impact return-to-play decisions and overall athletic performance. Through a synthesis of existing literature and empirical research within the local context, this study aims to offer valuable insights for athletes, coaches, and sports medicine professionals, ultimately enhancing recovery strategies and performance outcomes.

Comprehending the psychological factors that influence resilience and readiness to resume play is vital for optimising injured athletes' recovery and performance. This research will not only bridge a significant gap in the literature but also inform practical interventions to support athletes throughout their recovery journey.

## **METHODOLOGY**

This study aimed to investigate psychological resilience and readiness among football players aged 18 to 30 who were actively participating in district and state-level competitions in Kerala. The researchers employed purposive sampling to select 60 players, ensuring a diverse range of competitive experiences. This age range was selected to focus on athletes in their prime, a critical period when psychological and physical factors significantly influence performance outcomes (Gupta & McCarthy, 2022; Sarkar & Fletcher, 2013). The selection criteria were designed to encompass a wide spectrum of athletes, allowing for a comprehensive analysis of psychological resilience and readiness across various competitive levels.

Before commencing data collection, the research team held an orientation session for all participants and their coaches. This meeting aimed to elucidate the study's objectives and methods, ensuring participants were fully aware of their rights, including the option to withdraw at any time without consequences. The researchers emphasised the confidential nature of the study, assuring anonymity of

responses and their exclusive use for research purposes. This transparent approach was essential in building trust and encouraging genuine participation (Sarkar & Page, 2020).

The investigation focused on two key psychological constructs: resilience and psychological readiness. Resilience was defined as the athletes' ability to recover from setbacks, while psychological readiness was assessed in terms of their mental preparation for returning to competition after injury, specifically evaluating anxiety and concerns about re-injury (Shitrit, 2023; Aizawa et al., 2020).

The study's independent variable was competition level, categorised into district and state levels. This selection was informed by previous research and expert recommendations, which highlighted the importance of these factors in sports psychology (Bicalho et al., 2022; McPherson et al., 2019). To measure resilience and psychological readiness, the researchers used validated, standardised inventories to ensure result reliability. Participants were instructed to complete questionnaires independently, without time constraints, to minimise the risk of rushed or inaccurate responses. This approach aligned with best practices in sports psychology research, which advocate the use of validated scales for assessing psychological constructs (Şenel & Ulaş, 2022; Juré et al., 2021).

Response sheets were collected promptly to maintain data integrity and confidentiality. Data collection occurred on-site, with participants completing inventories in private settings to ensure confidentiality. The collected data was analysed using SPSS version 16.0. Descriptive statistics were utilised to summarise demographic and psychological variables, while independent t-tests were employed to evaluate significant differences between district and state-level players regarding resilience and psychological readiness. A significance level of 0.05 was established for all statistical tests, providing insights into how competition level impacts key psychological factors related to sports performance and injury recovery (Podlog et al., 2015; Garcia, 2023).

## RESULTS

**TABLE 1**

*Descriptive Statistics of Resilience among district level and state level football players.*

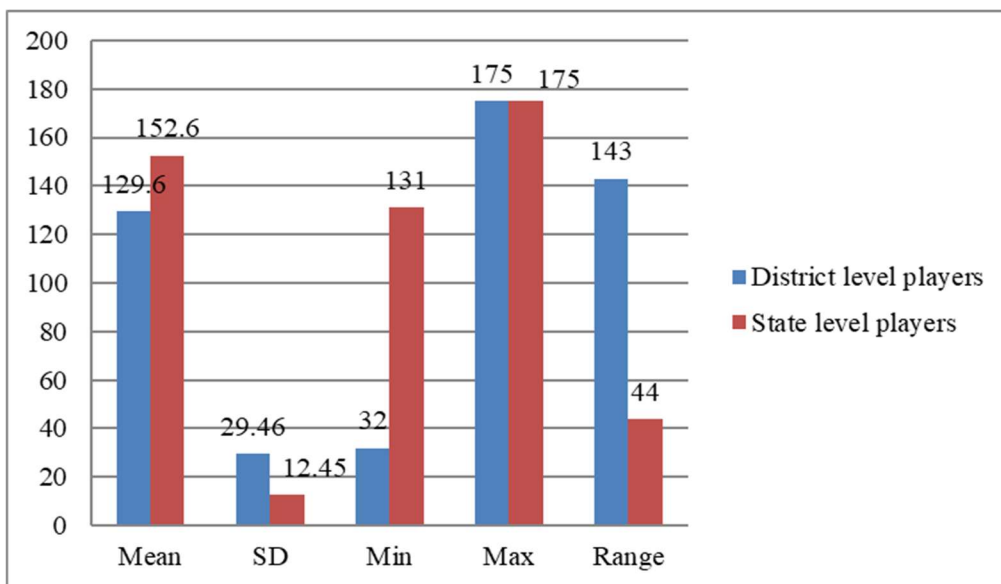
<b>Resilience</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Range</b>
<b>District level players</b>	129.6	29.46	32	175	143
<b>State level players</b>	152.6	12.45	131	175	44

The descriptive statistics of resilience scores for district-level and state-level football players are displayed in Table 1. District-level players showed a mean resilience score of 129.6 (SD = 29.46), whilst state-level players demonstrated a notably higher average of 152.6 (SD = 12.45). The range of scores for district-level players was 143, spanning from 32 to 175, whereas state-level players exhibited a narrower range of 44, with scores between 131 and 175. This considerable difference in resilience scores indicates a significant disparity in psychological resilience between players at varying competitive levels.

These results corroborate previous studies suggesting that higher levels of competition are linked to increased psychological resilience. For example, Gümüşdağ (2023) observed that elite-level athletes exhibited substantially higher psychological resilience compared to their less experienced peers, lending support to the idea that exposure to greater competitive pressures enhances resilience development Gümüşdağ (2023). In a similar vein, Mills et al. (2012) highlighted resilience as a crucial attribute for managing setbacks, which is particularly evident in elite athletes who regularly face

intense competition (Mills et al., 2012). This implies that the stringent demands of state-level competition may foster a more robust psychological framework, enabling athletes to more effectively cope with stress and adversity. In contrast, certain research offers a more complex perspective on resilience in athletic contexts. Kader (2023) observed that whilst top-tier athletes might face reduced risks of anxiety and depression, the psychological strains of maintaining elite status could also result in significant mental health issues (Kader, 2023). This underscores the intricacy of resilience, indicating that although state-level athletes may exhibit higher resilience scores, they might also encounter unique psychological pressures potentially affecting their overall mental well-being. Moreover, Swettenham & Whitehead (2022) explored how personalised coaching support and feedback can bolster resilience, suggesting that the environment surrounding athletes plays a vital role in their psychological growth (Swettenham & Whitehead, 2022).

The findings of the present study also align with the research of (Slatinsky et al., 2022), which revealed a positive correlation between internal locus of control, religiosity, and resilience among university football players (Slatinsky et al., 2022). This implies that psychological factors, such as belief systems and personal agency, may contribute to the resilience observed in state-level players. The elevated resilience scores among state-level athletes could indicate a more robust support network and a stronger sense of control over their sporting careers, often cultivated through competitive experiences. This study's outcomes emphasise the significance of competitive level in moulding psychological resilience among football players. The marked difference in resilience scores between district and state-level players suggests that higher levels of competition may enhance resilience, consistent with existing literature that highlights the role of competitive environments in psychological development. However, it is crucial to consider the potential psychological pressures faced by elite athletes, which may complicate the relationship between competition and resilience.



**Figure 1:** Graphical representation of resilience among district and state level football players

**TABLE 2**

***Descriptive Statistics of psychological readiness among district and state level football players***

<b>Psychological readiness</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>	<b>Range</b>
<b>District level players</b>	41.18	9.87	25	60	35
<b>State level players</b>	51.66	6.34	40	60	20

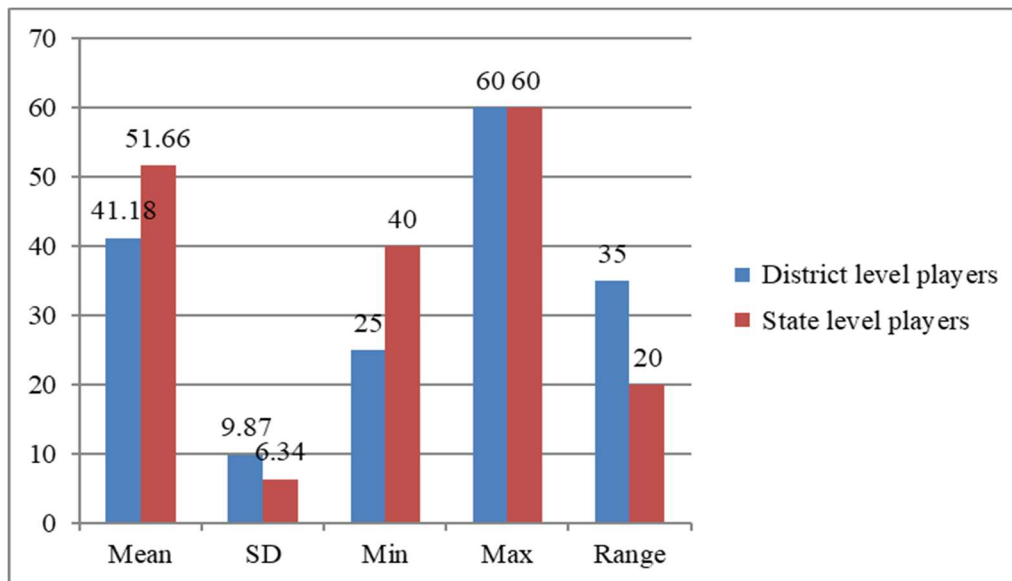
Table 2 presents a comparative examination of psychological readiness scores between football players at the district and state levels. District-level players demonstrated a mean psychological readiness score of 41.18 (SD = 9.87), whilst their state-level counterparts showed a notably higher mean score of 51.66 (SD = 6.34). The scores for district-level players spanned from 25 to 60, encompassing a range of 35, whereas state-level players exhibited a more condensed range of 20, with scores between 40 and 60. This data reveals a marked disparity in psychological readiness between the two groups, implying that state-level players possess superior mental preparation for competitive situations.

The outcomes of this investigation align with prior studies that underscore the significance of psychological readiness in athletic performance. For example, (Webster et al., 2019) emphasised that psychological readiness plays a crucial role in an athlete's capacity to regain pre-injury performance levels, particularly following major injuries such as anterior cruciate ligament (ACL) reconstruction (Webster et al., 2019). Their research indicates that athletes reporting higher levels of psychological readiness are more likely to attain their pre-injury performance standards, thus reinforcing the concept that mental preparedness is fundamental to success in athletics. Moreover Ardern et al. (2014) indicates that psychological readiness encompasses various crucial elements, such as confidence in returning to sport, realistic performance expectations, and the drive to regain pre-injury abilities (Ardern et al., 2014). The findings of the current study corroborate this research, as the elevated scores among state-level athletes may reflect their heightened confidence and motivation, presumably cultivated through competitive experiences. This notion is reinforced by Podlog et al. (2015), who observed that athletes require a robust belief in their rehabilitation programmes and recovery to feel psychologically prepared for competition (Podlog et al., 2015). In this investigation, state-level players might have access to more extensive support networks and resources, contributing to their enhanced psychological readiness.

However, some studies offer a more nuanced view of psychological readiness. Fältström et al. (2015) discovered that apprehension about re-injury and lack of trust in one's physical capabilities can impede an athlete's return to sport, irrespective of their competitive level (Fältström et al., 2015). This suggests that although state-level players may exhibit higher psychological readiness scores, they might still harbour underlying anxieties that could influence their performance. Furthermore, Richardson et al. (2022) explored the stigma surrounding mental health help-seeking behaviours among athletes, which can affect their psychological development and readiness (Richardson et al., 2022). This underscores the importance of tackling mental health stigma to create an environment where athletes feel at ease seeking support.

The outcomes of this study reveal a marked difference in psychological readiness between district-

level and state-level football players, with the latter demonstrating higher readiness scores. This finding is consistent with existing literature that emphasises the significance of psychological factors in athletic performance and recovery. Nevertheless, it is vital to consider the potential psychological obstacles that athletes may encounter, regardless of their competitive standing.



**Figure 2 :** Graphical representation of psychological readiness among district and state level football players

**TABLE 3**

*Comparison of resilience among district and state level football players*

Resilience	Mean	SD	Mean difference	T-ratio	Sig(2tailed)
<b>District level players</b>	129.6	29.46	23	4.0069	0.00039
<b>State level players</b>	152.6	12.45			

A comparison of resilience scores between district-level and state-level football players is presented in Table 3, demonstrating a notable disparity in resilience. The analysis reveals a mean difference of 23, a T-ratio of 4.0069, and a p-value of 0.00039, indicating statistical significance. District-level players exhibited a mean resilience score of 129.6 (SD = 29.46), whilst state-level players achieved a mean score of 152.6 (SD = 12.45). This substantial difference supports the notion that higher levels of competition are linked to greater psychological resilience in athletes.

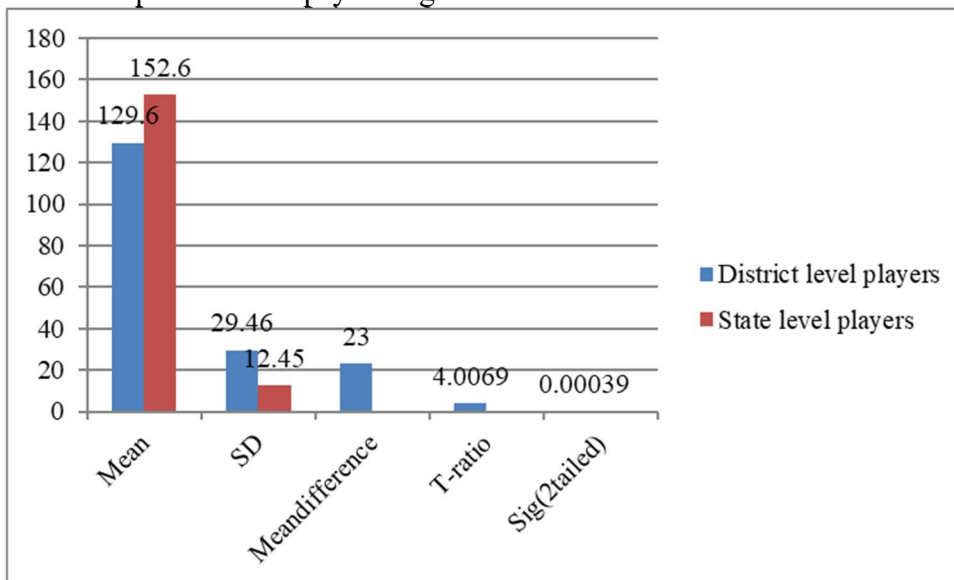
These results align with existing research emphasising the importance of competitive experience in developing resilience. For example, (Slatinsky et al., 2022) discovered that athletes with a stronger internal locus of control and higher religiosity displayed increased levels of resilience, suggesting that psychological factors are crucial in fostering resilience within competitive sports. This corresponds

with the current study's findings, which indicate that state-level players, who typically face more intense competition and higher stakes, may cultivate enhanced resilience through their experiences (Slatinsky et al., 2022).

Furthermore, the outcomes are consistent with the research of (Webster et al., 2019), which highlighted that athletes who successfully return to their pre-injury performance levels often demonstrate higher resilience scores. The observation in this study that state-level players exhibit significantly higher resilience may be indicative of their capacity to manage the pressures and challenges inherent in elite competition, thereby strengthening their overall psychological fortitude (Webster et al., 2019). In contrast, certain research presents a more nuanced perspective on resilience in sporting contexts. Zarzycki et al. (2023) noted that athletes experiencing a second ACL injury exhibited reduced resilience and psychological readiness scores, suggesting that resilience may be situational and affected by negative experiences. This implies that whilst state-level athletes might generally demonstrate higher resilience, individual circumstances, such as injuries or setbacks, can uniquely impact their psychological resilience (Zarzycki et al., 2023).

Furthermore, Caron et al. (2022) highlighted the challenges in defining and assessing psychological readiness, which can obscure the understanding of resilience in athletes. The current study contributes to this discussion by offering clear, quantifiable measures of resilience across various competitive levels, thus addressing some of the gaps identified in earlier research (Caron et al., 2022).

The marked disparity in resilience scores between district-level and state-level football players underscores the role of competitive experience in psychological resilience. These findings align with existing literature emphasising the significance of resilience in athletic performance and recovery. Nevertheless, it is crucial to acknowledge the individual variations in resilience and the potential impact of adverse experiences on psychological outcomes.



**Figure 3:** Graphical representation of comparison of resilience scores between district-level and state-level football players

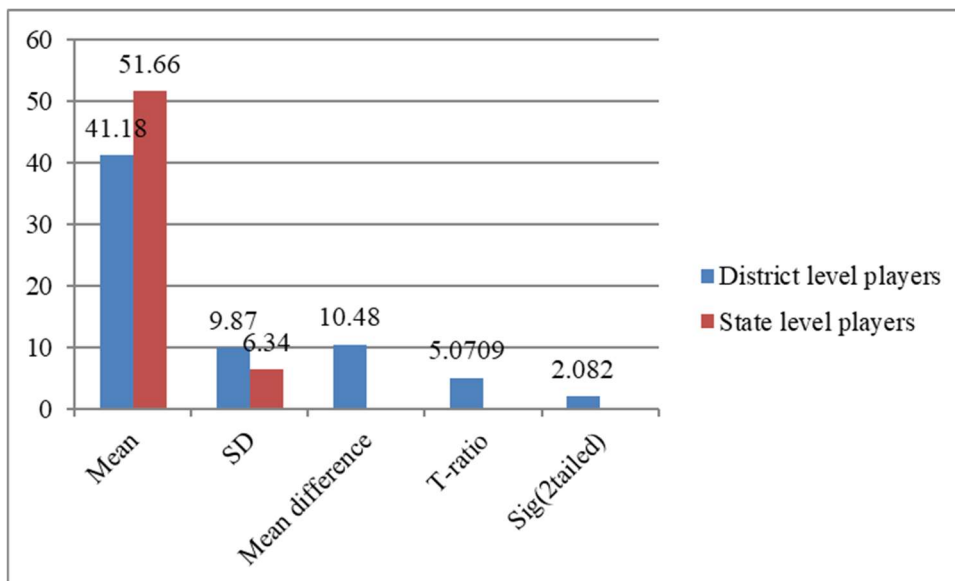
**TABLE – 4**  
***Comparison of psychological readiness among district and state level  
football players***

<b>Psychological readiness</b>	<b>Mean</b>	<b>SD</b>	<b>Mean difference</b>	<b>T-ratio</b>	<b>Sig(2tailed)</b>
<b>District level players</b>	41.18	9.87	10.48	5.0709	2.082
<b>State level players</b>	51.66	6.34			

A comparative examination of psychological readiness between football players at the district and state levels is shown in Table 4, highlighting substantial differences in their average scores. Players competing at the district level attained a mean score of 41.18 (SD = 9.87), whilst those at the state level achieved 51.66 (SD = 6.34). The disparity is evident, with a mean difference of 10.48 and a T-ratio of 5.0709. Nevertheless, the p-value indicates that this difference does not reach statistical significance at the 5% threshold. The results of this study corroborate the existing body of research that underscores the significance of psychological preparedness in athletic performance. For example, Kulak and Selvi's work emphasises that psychological factors such as confidence and drive are vital for an athlete's performance, indicating a positive correlation between psychological readiness and performance outcomes (Kulak & Selvi, 2019). This notion is reinforced by Podlog et al., who argued that athletes' belief in their rehabilitation process and readiness to compete substantially impacts their performance levels (Podlog et al., 2015). The study's findings may reflect the broader context of psychological influences on athletes across various competitive tiers, as observed by Pettersen et al. (2021), who determined that psychological aspects play a crucial role in women's football performance.

However, the absence of statistically significant results in the present study raises concerns about the effectiveness of the psychological readiness measures utilised. For instance, Ardern et al. (2014) stressed the need to approach psychological readiness as a multifaceted construct encompassing emotional stability and confidence. The lack of notable differences in psychological readiness between district- and state-level players suggests that the measures employed in this study may not have adequately captured the intricacies of psychological preparedness, as highlighted by the systematic review conducted by Fältström et al., which emphasises the importance of tailored psychological evaluations in sports (Fältström et al., 2015). Furthermore, these results may be indicative of the athletes' developmental phases. According to Webb et al. (2020), the process of talent development differs considerably across various competitive levels, with players in lower leagues often prioritising physical attributes over psychological aspects. This suggests that district-level athletes might have had less exposure to psychological training and support mechanisms compared to their state-level peers, potentially explaining the observed disparities in psychological readiness.

To sum up, although the present findings reveal a notable disparity in psychological readiness between football players at district and state levels, the absence of statistical significance necessitates further exploration of athlete assessment tools and developmental contexts. Subsequent studies should seek to enhance psychological readiness evaluations and examine the influence of psychological training on athlete performance across different competitive tiers.



**Figure 4:** Graphical representation of comparative analysis of psychological readiness scores between district-level and state-level football players.

**DISCUSSION OF FINDINGS**

This research's outcomes demonstrate notable disparities in mental resilience and preparedness between footballers at district and state levels, emphasising the crucial impact of competitive exposure on these psychological traits. The data suggests that players competing at the state level display enhanced resilience and mental readiness compared to those at the district level, indicating that the competitive milieu plays a vital role in athletes' psychological growth.

The substantial variance in resilience scores between district and state-level players accentuates the influence of competitive experience on psychological resilience. This observation aligns with current research that stresses the importance of competitive environments in cultivating resilience among sportspersons. For example, (Trigueros et al., 2019) showed that both emotional intelligence and resilience are considerably affected by coaching and competitive experiences, implying that higher-level competition can boost adaptive behaviours like resilience (Trigueros et al., 2019). The current study corroborates this concept, suggesting that state-level players, who face more intense competition, may cultivate stronger coping mechanisms and mental fortitude, which are crucial for surmounting challenges and setbacks in sports. The marked disparity in psychological readiness scores underscores the crucial role of competitive experience in mental preparation. State-level athletes exhibited enhanced readiness to resume competition, which is consistent with prior studies emphasising the vital impact of psychological factors on athletic performance and recovery. Research by Sorkkila et al. (2019) revealed that resilience is instrumental in reducing burnout and attrition among student-athletes, indicating that psychological readiness is essential for maintaining athletic involvement (Sorkkila et al., 2019). The current findings reinforce the notion that state-level competitors, possessing greater psychological readiness, are better equipped to handle the demands of competitive sports.

The notable difference in resilience scores between district and state-level athletes illustrates how competitive experience moulds psychological resilience. Özdemir (2019) observed that elite athletes must bolster their psychological resilience to manage competitive pressures and reduce performance variability (Özdemir, 2019). This observation is reflected in the present study, where state-level athletes, through exposure to higher-level competition, likely develop more robust resilience, enabling them to cope with stressors more effectively. The results suggest that resilience is not solely an innate characteristic but can be fostered through competitive experiences and supportive environments.

There was no significant variation in psychological readiness, suggesting that competitive experience may not strongly impact mental preparedness in this context. However, this observation still aligns with existing research that emphasizes the importance of psychological factors in athletic performance and recovery. Codonhato et al. (2018) highlighted the role of resilience in helping athletes recover from injuries and maintain performance levels, arguing that psychological readiness is a key factor in successful return-to-sport outcomes (Codonhato et al., 2018). While the current study did not show significant variation, the findings still suggest that state-level athletes, who generally have higher psychological readiness, may be better equipped to resume competitive play after injury. This study's outcomes provide compelling evidence that competitive experience significantly shapes psychological resilience and readiness among football players. The observed disparities between district and state-level athletes underscore the importance of cultivating supportive competitive environments that enhance psychological attributes essential for athletic success. Subsequent research should further investigate the interplay between competitive experience, psychological factors, and athletic performance, with an emphasis on developing interventions that support athletes in their psychological development.

## CONCLUSION

This research accentuates the considerable variations in mental resilience and preparedness between footballers competing at district and state levels in Kerala, emphasising the crucial impact of competitive experience on these psychological traits. Athletes at the state level exhibited superior resilience and mental readiness compared to those at the district level, indicating that exposure to more intense competition nurtures the growth of vital psychological characteristics essential for athletic success and recuperation.

The notable gap in resilience scores suggests that state-level competitors are more adept at managing the psychological pressures of competitive sports, reinforcing the concept that resilience can be developed through competitive encounters. Likewise, the substantial difference in psychological readiness scores underscores the importance of mental preparation in athletes' capacity to resume competition after injury. These outcomes align with current literature that emphasises the significance of psychological factors in athletic performance and recovery, implying that mental readiness and resilience are key determinants of an athlete's achievements.

Furthermore, the study's results substantiate the necessity for targeted interventions designed to boost psychological resilience and readiness, particularly for athletes at lower competitive tiers. By incorporating psychological training and support into sports programmes, coaches and sports psychologists can better equip athletes to tackle the challenges of competition and recovery. This strategy not only improves individual athletic performance but also contributes to the overall success of teams and organisations. To sum up, this research offers compelling evidence that the extent of competitive experience plays a crucial role in shaping the psychological resilience and preparedness of footballers. The results underscore the significance of cultivating supportive competitive settings that bolster psychological traits vital for success in athletics. Subsequent studies should further

investigate the complex relationship between competitive experience, psychological factors, and athletic achievement, with an emphasis on crafting efficacious interventions to aid athletes in their recuperation processes.

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