RESEARCH PAPER

Analysis of Adversity, Emotional and Social Quotients: The Interconnected Triad for Psychological Strength in Competitive Sports

Dr. Tanuja S. Raut[1], Dr. Saurav Tripathy[2] and Dr. Sanjay Kumar[3]

[1]Professor & Head, Department of Physical Education, Sant Gadge Baba Amravati University, Amravati, India
[2]Contractual Teacher, Department of Physical Education, Sant Gadge Baba Amravati University, Amravati, India
[3]PGT Physical Education, Jawahar Navodaya Vidyalaya, Khanpora, Budgam, J & K, India
[1]sonaitripathy90@gmail.com, [2]tanujaraut13@gmail.com and [3]sanjaykumarshivshall@gmail.com
[1]https://orcid.org/0000-0002-8073-4770 and [2]https://orcid.org/0000-0003-0461-3990

Received: 28th April, 2026; Revised: 6th June 2026; Accepted: 23rd July 2026; Available Online: 25th July, 2026

ABSTRACT

*In the high-pressure arena of competitive sports, the integration of adversity quotient, emotional intelligence, and social competence forms a crucial triad that underpins athletes' psychological resilience and overall performance. Recognizing how these quotients interact offers valuable insight for designing holistic training programs that strengthen both athletic performance and personal development. Therefore, the researcher has undertaken the present study titled—"**Analysis of Adversity, Emotional and Social Quotients: The Interconnected Triad for Psychological strength in Competitive Sports**". The purpose of the study was to examine the interrelationship between EQ with AQ and SQ and predict how EQ affects on AQ and SQ the psychological strength of athletes and also compare them according to types of sports. It was hypothesised by the researcher that, there is a significant relationship between Emotional Quotient (EQ) with Adversity Quotient (AQ) and Social Quotient (SQ) and also significant difference in EQ, AQ, and SQ scores based on the type of sport. The study population comprises sports persons aged 22 to 25 years enrolled in any affiliated college of Sant Gadge Baba Amravati University, Amravati in Maharashtra state of a total sample of 480 subjects; of which 240 were male and 240 were female. The assessment of psychological variables was done by using valid and standardized psychometric scales, namely AQ profile created by Dr. Paul G. Stoltz, Emotional Intelligence questionnaire developed by Daniel Goleman and Tromsø Social Intelligence Scale developed by Silvera et al. For analysis of the data ANOVA and regression analysis was employed to examine relationships and group differences. In the result it was found that, across individual, team, and combat game players, AQ and SQ show only small positive trends in relation to EQ, with associations ranging from weak to minimal. Overall, neither AQ nor SQ emerges as a statistically significant predictor of EQ in any sport category. Also, there is significant difference in EQ, AQ and SQ between the mentioned sports category. Together, these insights reinforce the significance of a multidimensional framework for understanding and developing psychological strength in athletes.*

Keywords: *Adversity Quotients, Emotional Quotients, Social Quotients, Psychological strength, Competitive Sports, Analysis.*

How to cite this article: Raut TS, Tripathy S, Kumar S., Analysis of Adversity, Emotional and Social Quotients: The Interconnected Triad for Psychological Strength in Competitive Sports. Int J Drug Deliv Technol. 2026;16(71s): 874-882. DOI: 10.25258/ijddt.16.71s.102.
Source of support: Nil.
Conflict of interest: None

INTRODUCTION

Intelligence in sport is often misunderstood or underestimated. Many people think that intelligence is only in terms of IQ or academics, but athletes demonstrate several distinct kinds of intelligence that are crucial for performance. Intelligence plays a vital role in the success of a sportsperson, extending far beyond physical ability. (**Sternberg**, 1988)

In sports, intelligence involves quick thinking, decision-making, strategic planning, and emotional control. A truly intelligent athlete can read the game, anticipate opponents' actions, and make accurate decisions even under intense pressure. (**Memmert**, 2010) So, in sports, success depends not only on physical ability and skill but also on psychological and social intelligence. Three important measures that influence athletic performance are Adversity Quotient (AQ), Emotional Quotient (EQ), and Social Quotient (SQ). This form of intelligence, like AQ, EQ and SQ allows players to adapt their tactics according to changing situations. (**Goleman**, 1995; **Stoltz**, 1997 and **Lynn**, 2010)

Adversity Quotient (AQ) refers to an athlete's ability to cope with challenges, recover from setbacks & pressure and also persist in achieving goals despite difficulties.

**Author for Correspondence: sonaitripathy90@gmail.com*

Sportspersons with a high AQ demonstrate resilience and persistence, using failures as opportunities for growth rather than reasons to quit. E.g., a player who loses first set of a match but uses that experience to win remaining two demonstrates strong AQ. Studies show that AQ positively correlates with motivation and performance among athletes (**Widohari**, **Kusuma & Sugiharto**, 2022). Therefore, AQ acts as a foundation for maintaining mental toughness and consistency under pressure.

Emotional Quotient (EQ) is the ability to recognize, understand, regulate, express and manage one's own emotions as well as those of others effectively. In sports, EQ is vital for maintaining focus, handling stress, building confidence and manage relationships within a team. Athletes with high EQ can handle criticism, control frustration, remain calm under pressure, motivate themselves during tough situations and support their teammates effectively. High EQ also enhances leadership and teamwork, both of which are essential in team-based sports. Research indicates that emotional intelligence significantly predicts athletic performance and psychological well-being (**Kopp & Jekauc**, 2018). Thus, EQ enables athletes to perform consistently and helps in communication and maintaining positive relationships within a team throughout their careers.

Social Quotient (SQ) represents the capacity to interact effectively with others in social and team settings. Sportspersons with high SQ show strong teamwork, leadership, communication skills and mutual understanding among players and coaches. SQ plays a vital role in maintaining coordination, trust, and leadership skills. According to studies on social intelligence in athletes, individuals with stronger social skills contribute more effectively to team success and morale (**Chadha & Ganesan**, 1986; **Jain & Jaiswal**, 2019) High SQ not only improves teamwork but also creates a positive and supportive sporting environment—key traits in team sports. (**Lynn**, 2010)

It's already well-established fact that, Sports performance depends not only on an athlete's physical skills and technical ability but also on their mental and emotional capacities. Three important psychological factors that strongly influence an athlete's success are the Adversity Quotient (AQ), Emotional Quotient (EQ), and Social Quotient (SQ). Together, these determine how well an athlete responds to challenges, manages emotions, and interacts with others in competitive settings.

When AQ, EQ, and SQ work together, they create a balanced athlete who is mentally resilient (AQ), emotionally stable (EQ), and socially adaptable (SQ). Such athletes are more likely to maintain focus under stress, recover from setbacks, build strong relationships, and perform consistently at high levels. In short, physical training strengthens the body, but these psychological quotients strengthen the mind and spirit, which are equally essential for achieving long-term success in sports.

Connection between AQ and EQ

Athletes with high EQ often show high AQ because emotional regulation helps them respond positively to adversity. When players can manage frustration, stay calm, and remain focused after failure, their ability to recover and persevere increases. Studies have found significant positive correlations between AQ and EQ (**Handayani & Akbar**, 2023; **Widohari, Kusuma, & Sugiharto**, 2022), suggesting that emotionally intelligent athletes are generally more resilient and mentally tougher in competition.

Connection between EQ and SQ

Social Quotient (SQ) is the capacity to communicate, cooperate, and maintain social relationships effectively (**Lynn**, 2010). High EQ enhances SQ, as emotional awareness and empathy improve social interaction. In team sports, athletes who understand and manage their own emotions are better at understanding teammates' emotions, which strengthens trust and cohesion (**Chadha & Ganesan**, 1986). This relationship shows how emotional intelligence directly influences social functioning within a team, which in turn improves teamwork and performance.

Connection between AQ and SQ

While AQ helps athletes stay strong in adversity, SQ ensures they seek and provide social support when needed. Athletes with higher SQ are better at sharing stress, accepting feedback, and learning from others, which reinforce their AQ. Team environments with high social connectedness have been shown to improve motivation and resilience (**Wayment and Walters**, 2016). Hence, social intelligence and resilience work together to maintain morale and perseverance during difficult times.

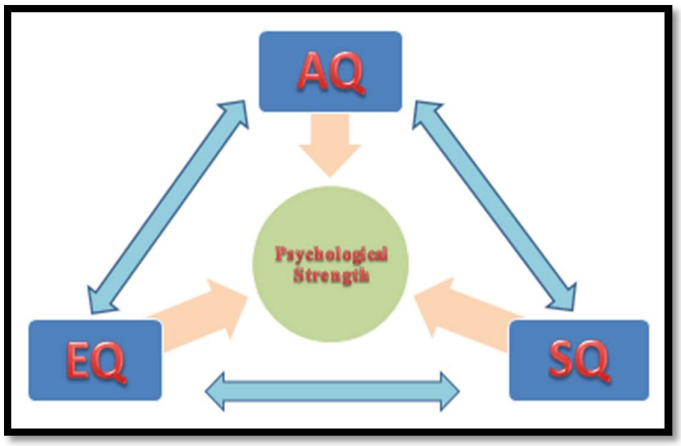

Figure 1: AQ, EQ and SQ Interconnected Triad for Psychological Strength

Overall Relationship and Impact on Sports Performance:
Together, AQ, EQ, and SQ form an interconnected triad that supports an athlete's overall psychological strength.

- **AQ** gives endurance and determination.
- **EQ** ensures emotional balance and mental focus.
- **SQ** builds cooperation and teamwork.

An athlete with a balance of these three quotients can stay calm under pressure, adapt to changing situations, and maintain strong relationships—qualities essential for consistent sports success. The interaction among AQ, EQ, and SQ leads to better performance, leadership, and overall well-being in both individual and team sports.

Background:
The study of Adversity Quotient (AQ), Emotional Quotient (EQ), and Social Quotient (SQ) in sportspersons stems from the growing recognition that psychological and emotional factors significantly impact athletic performance and resilience. AQ reflects an athlete's ability to withstand and overcome challenges, which is crucial in competitive sports environments. EQ plays a key role in managing emotions, maintaining focus, and building strong team dynamics, all of which influence success on and off the field. SQ, though less commonly studied, offers insights into inner motivation, ethical behaviour, and a sense of purpose that can sustain athletes through pressure and setbacks. Understanding the interplay between these quotients can help in developing holistic training programs that enhance both performance and personal growth in athletes. Hence the researcher taken the study entitled, "***Analysis of Adversity, Emotional and Social Quotients: The Interconnected Triad for Psychological strength in Competitive Sports***".

Research Gap:
Despite growing interest in psychological factors affecting athletic performance, limited research has holistically examined the combined impact of Adversity Quotient (AQ), Emotional Quotient (EQ), and Social Quotient (SQ) on players of competitive sports. Most existing studies tend to focus on these quotients in isolation, missing the potential synergy and interconnected influence they may have on psychological strength. Furthermore, there is a lack of sport-specific analyses that account for differences across competitive levels, disciplines, and team versus individual sports. Few studies have explored how these three quotients interact to influence coping strategies, resilience, and long-term performance sustainability. This research seeks to fill these gaps by providing an integrated analysis of AQ, EQ, and SQ as a triad essential for the psychological strength of athletes in high-pressure environments.

Objectives:
The primary objective of this study was to assess the levels of Adversity Quotient (AQ), Emotional Quotient (EQ), and Social Quotient (SQ) among players of competitive sports. It aims to examine the interrelationship between EQ with AQ and SQ and predict how EQ effects on AQ and SQ the psychological strength of athletes. Furthermore, the study also seeks to identify significant differences in AQ, EQ, and SQ based on type of sport i.e., individual vs. team vs. combat. Ultimately, the study aspires to provide evidence-based recommendations for developing integrated psychological training interventions that strengthen AQ, EQ, and SQ among athletes, thereby enhancing their mental readiness and overall sporting performance.

Alternate Hypothesis:

- **Ha_1**: There is a significant relationship between Emotional Quotient (EQ) with Adversity Quotient (AQ) and Social Quotient (SQ) among the players in competitive sports.
- **Ha_2**: There is a significant difference in EQ, AQ, and SQ scores based on the type of sport (individual vs. team vs. combat).

Research Design:
This study adopts a quantitative, descriptive-correlational research design to analyze the levels and interrelationships among Adversity Quotient (AQ), Emotional Quotient

(EQ), and Social Quotient (SQ) in competitive sports players. A cross-sectional survey method was used to collect data from a diverse group of athletes across various sports disciplines, including individual, team and combat sports. Standardized and validated psychometric instruments are administered to assess AQ, EQ, and SQ levels and also type of sport was recorded.

Research Subjects and Methods:

The study population comprises sports persons aged 22 to 25 years enrolled in any affiliated college of Sant Gadge Baba Amravati University, Amravati in Maharashtra state. A total sample of 480 subjects was pick out using purposive sampling method of which 240 were male and 240 were female, ensuring equitable representation from each sports category for each gender.

Table 1: Illustrated the size of population as well as sample

	Age Group (Years)	Individual Sports	Team Sports	Combat Sports	Total
Male	22	20	20	20	60
	23	20	20	20	60
	24	20	20	20	60
	25	20	20	20	60
Total		80	80	80	240
Female	22	20	20	20	60
	23	20	20	20	60
	24	20	20	20	60
	25	20	20	20	60
Total		80	80	80	240

Variables (Conceptual Model):

Table 2: Explained Dependent, Independent and Control Variables Used for the study

Dependent Variables	Independent Variables	Control or Extraneous Variables
Types of Intelligence (Adversity Quotient (AQ), Emotional Quotient (EQ) and Social Quotient (SQ)	**Type of Sports** (Individual Sports, Team Sports, Combat Sports)	**Age, Level of Competition, Training Schedule, Food habit, Geographical region, Socioeconomic Factors**

Tools for Data Collection:

The assessment of psychological variables was done by using valid and standardized psychometric scales accepted in sports psychological research.

AQ index is determined through the AQ profile, created by Dr. Paul G. Stoltz - President and CEO of The Peak Academy – A research and consulting firm in San Luis Oispo. AQ consists of 4 dimensions C (Control), O (Ownership), R (Reach) and E (Endurance). The whole test consists of 20 questions. Each question has different response levels, from 1 to 5 points. The AQ profile needs to be formed within 8 to 10 minutes. AQ is determined by the formula: AQ = (C + O + R + E) x 2, where the average point is 147.5. The higher score is the better.

The EI or EQ was measured by Emotional Intelligence questionnaire developed by Daniel Goleman which assesses emotional competencies in five key areas: self-awareness, managing emotions, Motivating oneself, empathy and social skill. The questionnaire consists of 50 statements, which the subjects have to state that at how much degree the statements apply on him/her in 5 point rating scale, where 1= Does not apply, 3= Applies half the time and 5 = always applies. Higher the score in each section implies 'Strength' and lower score implies 'development Priority' of that area.

The Tromsø Social Intelligence Scale (TSIS) is a 21-item self-report questionnaire that measures social intelligence across three subscales: social information processing, social skills, and social awareness. Developed by Silvera et al. in 2001, it asks participants to rate how well statements describe them on a 7 point Likert scale, with higher scores indicating higher social intelligence. The TSIS is used in research to assess an individual's ability to understand and navigate social situations.

Ethical Considerations:

Before data collection, ethical clearance was obtained from the institutional head and sports directors. Informed consent was secured from parents or guardians of all participants, and assent was obtained from the sports persons themselves. Confidentiality and anonymity were strictly maintained throughout the research process.

Data Analysis:

Descriptive statistics (mean, standard deviation) will be used to summarize the data, while inferential statistics such as ANOVA and Regression analysis was employed to examine relationships and group differences. This design enables a comprehensive understanding of how AQ, EQ, and SQ function independently and collectively to influence the psychological strength of athletes in competitive environments.

Table 3: AQ of Sports Persons by Type of Sports and Age

Age	Individual		Team		Combat	
	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$
22	20	127.9 ±15.09	20	124.3 ± 14.40	20	140.3 ± 17.02
23	20	130.8 ±12.62	20	126.5 ± 10.52	20	143.3 ± 12.06
24	20	132.3 ± 6.88	20	128.1 ± 5.45	20	145.4 ± 11.24
25	20	134.7 ± 5.55	20	129.2 ± 9.59	20	147.4 ± 10.03

Table 4: EQ of Sports Persons by Type of Sports and Age

Age	Individual		Team		Combat	
	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$
22	20	180.15 ± 9.59	20	192.05 ± 3.75	20	172.5 ± 3.72
23	20	183.7 ± 9.60	20	194.35 ± 8.51	20	175.5 ± 8.13
24	20	185.3 ± 12.30	20	195.6 ± 11.06	20	177.5 ± 11.75
25	20	187.2 ± 12.32	20	197.9 ± 11.80	20	179.3 ± 10.79

Table 5: SQ of Sports Persons by Type of Sports and Age

Age	Individual		Team		Combat	
	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$	n	$\bar{X} \pm SD$
22	20	95.5 ± 3.02	20	102.85 ± 2.68	20	87.9 ± 3.64
23	20	98.5 ± 11.10	20	105.7 ± 12.11	20	91.9 ± 9.04
24	20	101.2 ± 8.74	20	108.7 ± 10.69	20	94.3 ± 10.67
25	20	104.7 ± 11.24	20	111.3 ± 10.87	20	97.8 ± 10.94

Table 6: Multiple Regression Analysis with AQ & SQ as Dependent Variable and EQ as Independent Variables in Individual Game Players

Model	Multiple R	R^2	Adjusted R^2	Std. Error of the Estimate
EQ Independent	0.218	0.0475	0.0228	11.006

Table 7: ANOVA Analysis

Model	Sum of Square	df	Mean Square	F	Sig. F
Regression	465.51	2	232.75	1.921	0.153
Residual	9326.88	77	121.13		
Total	9792.39	79			

Table 8: Regression Coefficient of EQ with Other Types of Intelligence as Dependent Variable

	Regression Coefficient		t-stat	p-value	95% CI	
	B	Std. Error			Lower Bound	Upper Bound
Intercept	153.142	18.082	8.469	<0.05	117.14	189.15
AQ	0.061	0.1164	0.5219	0.6032	-0.1711	0.293
SQ	0.229	0.1317	1.744	0.0852	-0.0326	0.492

Regression Equation:

EQ = 153.142 + 0.0608(AQ) + 0.2296(SQ)

This equation can be used to estimate predicted EQ scores, but given the low predictive power and non-significant coefficients, it should be interpreted cautiously.

SUMMARY OF REGRESSION RESULTS

The coefficient 0.0608 indicates that for every 1-unit increase in AQ, EQ increases by only 0.06 points, a very small and practically negligible effect. p = 0.603, which is far above 0.05, meaning AQ is not a statistically significant predictor of EQ. The 95% confidence interval crosses zero, confirming that the true effect of AQ may even be negative.

The coefficient 0.2296 means that a 1-unit increase in SQ is associated with a 0.23-point increase in EQ. Although the effect is larger than AQ, it remains small in magnitude. p = 0.085, which is not statistically significant at the 0.05 level, but it is close enough to be considered a marginal or trending effect. The 95% CI again crosses zero, meaning the effect is not reliably different from zero.

Neither AQ nor SQ significantly predicts EQ. AQ's effect is very small and clearly non-significant. SQ's effect is somewhat larger but still not strong enough to reach significance. The model suggests that EQ is influenced by factors other than AQ and SQ.

Table 9: Multiple Regression Analysis with AQ & SQ as Dependent Variable and EQ as Independent Variables in Team Game Players

Model	Multiple R	R^2	Adjusted R^2	Std. Error of the Estimate
EQ Independent	0.154	0.024	-0.0016	9.398

Table 10: ANOVA Analysis

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	165.401	2	82.7007	0.936	0.396
Residual	6800.55	77	88.32		
Total	6965.95	79			

Table 11: Regression Coefficient of EQ with Other Types of Intelligence as Dependent Variable

	Regression Coefficient		t-stat	p-value	95% CI	
	B	Std. Error			Lower Bound	Upper Bound
Intercept	171.471	17.731	9.671	<0.05	136.164	206.77
AQ	0.126	0.1015	1.239	0.219	-0.0763	0.3278
SQ	0.0703	0.1044	0.673	0.503	-0.1377	0.2782

REGRESSION EQUATION

Predicted Outcome = 171.4706 + 0.1258(AQ) + 0.0703(SQ)

This equation can be used to compute predicted values, but must be interpreted cautiously since neither AQ nor SQ is significant.

The coefficient 0.1258 means that for every 1-point increase in AQ, the dependent variable increases by 0.126 points. This is a small and weak effect. p = 0.219, which is not statistically significant (greater than 0.05). The 95% CI includes zero, meaning the true effect could be negative or positive.

The coefficient 0.0703 means that for each 1-point increase in SQ, the dependent variable increases by only 0.07 points. This is a very small effect size. p = 0.503, showing no statistical significance. The 95% CI contains zero, indicating the effect is unreliable.

People with higher AQ tend to score slightly higher on the dependent variable, but the effect is weak and not statistically reliable. People with higher SQ also tend to score slightly higher, but again the effect is weak and non-significant. Overall, the analysis does not support the idea that AQ or SQ are strong or significant predictors.

Table 12: Multiple Regression Analysis with AQ & SQ as Dependent Variable and EQ as Independent Variables in Combat Game Players

Model	Multiple R	R^2	Adjusted R^2	Std. Error of the Estimate
EQ Independent	0.138	0.0189	-0.0065	9.3479

Table 13: ANOVA Analysis

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	130.279	2	65.139	0.745	0.4779
Residual	6728.52	77	87.38		
Total	6858.8	79			

Table 14: Regression Coefficient of EQ with Other Types of Intelligence as Dependent Variable

	Regression Coefficient		t-stat	p-value	95% CI	
	B	Std. Error			Lower Bound	Upper Bound
Intercept	159.232	14.117	11.279	<0.05	131.12	187.344
AQ	0.0579	0.0837	0.6905	0.491	-0.1088	0.2244
SQ	0.0929	0.1124	0.827	0.411	-0.1308	0.3167

REGRESSION EQUATION

Predicted Value = 159.2321 + 0.0578(AQ) + 0.0929(SQ)

This equation can be used for prediction, but due to the non-significant predictors, predictions should be interpreted cautiously.

For every **1-unit increase in AQ**, the dependent variable increases by **0.058 points**. This is a **very small effect size**. The p-value **0.492** indicates **no statistical significance**. The confidence interval crosses zero, confirming that the true effect could be positive, negative, or zero.

For each 1-unit increase in SQ, the dependent variable increases by **0.093 points**. Again, this is a **very small effect**. With a p-value of **0.411**, the effect is **not significant**. The confidence interval overlaps zero substantially, indicating **complete statistical uncertainty**.

Individuals with higher AQ show slightly higher values on the outcome variable, but the effect is weak and not

statistically meaningful. Individuals with higher SQ also show a very small increase, but this too is not significant. Together, AQ and SQ do not form a strong or reliable model for predicting the outcome. The intercept is the only significant value, indicating the general baseline level, not predictor effects.

Again, to identify significant differences in EQ, AQ, and SQ based on type of sport i.e., individual, team and combat sports players researcher again analysed the data using ANOVA. The table and graphs are presented below:

Table 15A: Descriptive Statistics of EQ Based on Types of Sport

Groups	Count	Sum	Average	Variance
Individual	80	14727	184.09	123.95
Team	80	15598	194.98	88.18
Combat	80	14096	176.20	86.82

Table 15B: ANOVA Table of EQ

Source of Variation	SS	df	MS	F	P-value	F-crit
Between Groups	14220.03	2	7110.01	71.35*	< 0.05	3.034
Within Groups	23617.14	237	99.65			
Total	37837.16	239				

In the given table the value of Tabulated 'F' is 3.034 and the value of Calculated 'F' is 71.35 which is greater than tabulated 'F' at 0.05 level of confidence so it is said that there is significant difference in EQ level of different types of sports persons. Hence the researcher's hypothesis is accepted.

As, there is significant difference in EQ level of the players of different sports, so researcher further calculated the LSD.

Table 15C: Post Hoc Comparison of Means of EQ between Players of Different Sports

Group		Individual	Team	Combat	Critical Difference
		184.09	**194.98**	**176.20**	
Individual	**184.09**	0	10.89*	7.89*	**3.109**
Team	**194.98**		0	18.78*	
Combat	**176.20**			0	

***Significant**

The above table shows that there is significant difference of EQ level between the team and individual game player, team and combat game player and also individual and combat game player at 0.05 level of significance.

Table 16A: Descriptive Statistics of AQ Based on Types of Sport

Groups	Count	Sum	Average	Variance
Individual	80	10514	131.43	117.99
Team	80	10162	127.03	109.16
Combat	80	11528	144.10	166.27

Table 16B: ANOVA Table of AQ

Source of Variation	SS	df	MS	F	P-value	F-crit
Between Groups	12575.23	2	6287.62	47.95*	< 0.05	3.034
Within Groups	31080.7	237	131.14			
Total	43655.93	239				

In the given table the value of Tabulated 'F' is 3.034 and the value of Calculated 'F' is 47.95 which is greater than tabulated 'F' at 0.05 level of confidence so it is said that there is significant difference in AQ level of different types of sports persons. Hence the researcher's hypothesis is accepted.

As there is significant difference in AQ level of the players of different sports, so researcher further calculated the LSD.

Table 16C: Post Hoc Comparison of Means of AQ between Players of Different Sports

Group		Individual	Team	Combat	Critical Difference
		131.43	**127.03**	**144.10**	
Individual	**131.43**	0	4.4*	12.67*	**3.567**
Team	**127.03**		0	17.07*	
Combat	**144.10**			0	

***Significant**

The above table shows that there is significant difference of AQ level between the combat and team game player, combat and Individual game player and also individual and team game player at 0.05 level of significance.

Table 17A: Descriptive Statistics of SQ Based on Types of Sport

Groups	Count	Sum	Average	Variance
Individual	80	7998	99.98	92.23
Team	80	8571	107.14	103.08
Combat	80	7438	92.98	92.20

Table 17B: ANOVA Table of SQ

Source of Variation	SS	df	MS	F	P-value	F-crit
Between Groups	8023.41	2	4011.70	41.86*	< 0.05	3.034
Within Groups	22713.39	237	95.84			
Total	30736.8	239				

In the given table the value of Tabulated 'F' is 3.034 and the value of Calculated 'F' is 41.86 which is greater than tabulated 'F' at 0.05 level of confidence so it is said that there is significant difference in SQ level of different types of sports persons. Hence the researcher's hypothesis is accepted.

As there is significant difference in SQ level of the players of different sports, so researcher further calculated the LSD.

Table 17C: Post Hoc Comparison of Means of SQ between Players of Different Sports

Group		Individual	Team	Combat	Critical
		99.98	**107.14**	**92.98**	**Difference**
Individual	**99.98**	0	7.16*	7.00*	**3.049**
Team	**107.14**		0	14.16*	
Combat	**92.98**			0	

***Significant**

The above table shows that there is significant difference of SQ level between the combat and team game player, team and Individual game player and also combat and individual game player at 0.05 level of significance.

DISCUSSION & CONCLUSION

The research findings reveal nuanced relationships between Adversity Quotient (AQ), Success Quotient (SQ), Emotional Quotient (EQ), and game types among competitive sports players, highlighting both limitations in predictive power and meaningful group differences.

For individual Game Players AQ exhibits a positive but weak association with EQ, suggesting that resilience to adversity marginally supports emotional intelligence in solitary sports like badminton or volleyball, where self-reliance is key. SQ shows only a tiny positive link, indicating limited overlap with emotional regulation. Neither AQ nor SQ statistically predicts EQ, implying other factors—such as cognitive flexibility or training intensity—drive EQ more strongly in this group.

For team Game Players, AQ fails to predict EQ changes, with a very small, non-significant effect, which aligns with team dynamics where collective support may buffer individual adversity responses. SQ displays a positive trend toward predicting EQ but lacks statistical significance, hinting at potential small influences from achievement-oriented traits in collaborative settings like hockey. These weak patterns underscore that interpersonal skills, rather than AQ or SQ alone, likely dominate EQ development in teams.

Practical Implications of the Study:

Significant differences in EQ, AQ, and SQ levels across individual, team, and combat players support the accepted hypothesis, reflecting sport-type impacts: individual players may excel in self-focused resilience (higher AQ), teams in relational EQ, and combat athletes in raw endurance. These findings challenge universal quotient models, advocating tailored interventions—e.g., AQ training for individuals, SQ enhancement for teams. Future studies should explore mediators like experience level or gender for deeper insights into sports psychology applications.

REFERENCES

1. Chadha, N., & Ganesan, R. (1986). *Manual for Social Intelligence Scale*. Agra: National Psychological Corporation.
2. Cohen, S., & Wills, T. A. (1985). *Stress, Social Support, and the Buffering Hypothesis. Psychological Bulletin,* 98(2), 310–357.
3. Den Hartigh, R. J. R., Meerhoff, L. R., Van Yperen, N. W., Neumann, N. D., Brauers, J. J., Frencken, W. G. P., Emerencia, A., Hill, Y., Platvoet, S., Atzmueller, M., Lemmink, K. A. P. M., & Brink, M. S. (2022). *Resilience in sports: A multidisciplinary, dynamic, and personalized perspective. International Review of Sport and Exercise Psychology*, 17(1), 564–586. https://doi.org/10.1080/1750984X.2022.2039749.
4. Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

5. Gupta, S., & McCarthy, P. J. (2022). *The sporting resilience model (systematic review) — includes discussion of social cohesion/social support as protectors of resilience relevant to SQ ↔ AQ interactions. Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2022.1003053.
6. Handayani, L. ., & Akbar, Y. K. (2022). The Effect of Adversity Quotient, Critical Thinking on Athlete Performance. *International Conference of Business and Social Sciences*, 2(1), 985–992.
7. Jain, R., & Jaiswal, C. (2023). *Effect of Emotional Intelligence in Sports. International Journal of Behavioral Social and Movement Sciences*, 12(1), 151-171.
8. Kopp, A., & Jekauc, D. (2018). *The influence of emotional intelligence on performance in competitive sports: A meta-analytical investigation*. *Sports*, 6(4), 175. https://doi.org/10.3390/sports6040175.
9. Kopp, A., & Jekauc, D. (2025). *Trait Emotional Intelligence in Competitive Sports: Are there Differences in Dimensions of Emotional Intelligence When Comparing Different Sports? BMC Psychology*, 13, Article 253. https://doi.org/10.1186/s40359-025-02563-w.
10. Lynn, R. (2010). *The role of social intelligence in human relationships*. Personality and Individual Differences, 49(5), 482–486. https://doi.org/10.1016/j.paid.2010.04.013.
11. Martín-Rodríguez, A., Gostian-Ropotin, L. A., Beltrán-Velasco, A. I., Belando-Pedreño, N., Simón, J. A., López-Mora, C., Navarro-Jiménez, E., Tornero-Aguilera, J. F., & Clemente-Suárez, V. J. (2024). *Sporting mind: The interplay of physical activity and psychological health. Sports*, 12(1), Article 37. https://doi.org/10.3390/sports12010037.
12. Martín-Talavera, L., Mediavilla-Saldaña, L., Molero, D., & Gavín-Chocano, O. (2024). *The Effect of Resilience on Emotional Intelligence and Life Satisfaction in Mountain Sports Technicians*. *Apunts Educación Física y Deportes*, 155, 1–9. https://doi.org/10.5672/apunts.2014-0983.es.155.01.
13. Memmert, D. (2010). *Testing of tactical performance in youth elite soccer*. Journal of Sports Science and Medicine, 9(2), 199–205. https://www.jssm.org/researchjssm-09-199.xml
14. Muñoz, A. R., & colleagues. (2023). *Team cohesion profiles: Influence on the development of mental skills and stress management. Journal of Human Sport and Exercise*, 22, 637–655.
15. Perlin Sinekha, P., Inamdar, I. F., & Gadekar, R. D. (2024). *A study of adversity quotient, emotional quotient and spiritual quotient among medical undergraduates in Nanded District of Maharashtra*. *Indian Journal of Community Medicine, 49*(7, Suppl.), S103.
16. Ramírez Muñoz, A., Vega-Díaz, M., & González-García, H. (2023). *Team Cohesion Profiles: Influence on the Development of Mental Skills and Stress Management. Journal of Sports Science and Medicine,* 22(4), 637–644. https://doi.org/10.52082/jssm.2023.637.
17. Reetika, J., & Jaiswal, D. C. (2023). *Effect of Emotional Intelligence in Sports. International Journal of Behavioral Social and Movement Sciences*, 12(1), 151–171.
18. Saxena, S., & Rathore, B. (2024). *Adversity quotient as determining factor of mental health and professional quality of life among healthcare professionals: A systematic review. Annals of Neurosciences*, 32(1), 58–65. https://doi.org/10.1177/09727531241231055
19. Şekerci, K., Şahbudak, M., & Işıkgöz, M. E. (2025). *The interplay of emotional intelligence and mental toughness in amateur soccer: The role of goal commitment*. *Frontiers in Psychology*, 16, Article 1670502. https://doi.org/10.3389/fpsyg.2025.1670502.
20. Shaikh, G. D. & Kochar, M. K. (2023). *Social, Emotional, And Adversity Quotient Impacting Pre-Teen Students Self-Esteem*. *Journal of Namibian Studies*, *38*.
21. Singh, S., & Bal, B. S. (2024). *A Study of Emotional Intelligence between Male Inter-University Basketball and Volleyball Players*. *Journal of Sports Science and Nutrition*, 5(2), 7–10.
22. Sternberg, R. J. (1988). *The triarchic mind: A new theory of human intelligence.* New York: Viking Penguin.
23. Stoltz, P. G. (1997). *Adversity quotient: Turning obstacles into opportunities*. John Wiley & Sons.
24. Wayment, H. A., & Walters, A. S. (2017). *Goal orientation and well-being in college athletes: The importance of athletic social connectedness*. *Journal of Sports Sciences*. Advance online publication. 35(21), 2114-2120.
25. Widohari, A. S., Kusuma, D. W. Y., & Sugiharto, S. (2022). *Correlation of Intelligent Quotient, Emotional Quotient, and Adversity Quotient to Badminton Athletes' Achievement*. Journal of Physical Education and Sports, 11(3), 365–372.
26. Zhao Y, Sang B. (2023). *The role of emotional quotients and adversity quotients in career success. Front Psychol*; 14: 1128773. doi: 10.3389/fpsyg.2023.1128773