Ann Appl Sport Sci, InPress(InPress): e1277.
http://www.aassjournal.com; e-ISSN: 2322–4479; p-ISSN: 2476–4981. 10.61186/aassjournal.1277

ORIGINAL ARTICLE

Emotional Intelligence, Stoicism and Athletic Performance among Amateur Athletes: The Moderating Role of Gender

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Submitted October 12, 2023; Accepted in final form January 03, 2024.

ABSTRACT

Background. In sports, regular training produces regular discomfort through pain, discomfort, and adverse conditions. Hence, tolerance to pain sensitivity and focusing only on the controllable can be effectuated through the principle of stoicism. Athletes often take on stoic attitudes while managing their emotions as the former teaches athletes to maintain their inner tranquillity which helps in avoiding impulsive reactions during competitions which helps them in their performance. Stoicism helps athletes in tolerating the pain threshold as the former aligns well with the demands of the sports environment which can impact the athletes' performance positively through better self-control, adaptability, etc. In the prior literature, there have been inconsistent studies with respect to which gender is stoic or emotionally intelligent, hence, exploring the moderating role of gender will give a nuanced perspective to the findings and an intervention can be tailored based on the same. **Objectives.** In order to bridge this gap, the present research aims to study gender as a moderator between stoicism and emotional intelligence toward athletic performance. **Methods.** The sample of 453 athletes (Female=118, Male=335) from Delhi-NCR which was determined with G*Power 3.1 software. Through the Hayes Process module, a significant moderation effect was analyzed which was further followed by the Johnson-Neyman technique to probe interactions. **Results.** The findings concluded that male athletes who are emotionally intelligent and stoic are likely to perform better than female athletes. **Conclusion.** Hence, future suggestions have given strong evidence for developing intervention plans for the athletes.

KEYWORDS: ***Emotional Intelligence, Performance, Stoicism, Gender Moderation, Amateur Athletes.***

INTRODUCTION

Sports is a complex environment that is accompanied by regular pain, discomfort, career-ending injuries and just to name a few. Despite these debilitating factors, athletes tend to persevere towards their long-term goals such as nationals, Asian, commonwealth games, or even the Olympics. These observations raise two important questions: are athletes able to focus without focusing on the uncontrollable such as weather, noise, competitor's peak performance, and are athletes able to manage their emotions during such complex environments which might trigger anger, frustration, hopelessness, and helplessness in them? Focusing on the controllable and being emotionally intelligent can help an athlete become aware and prudent while responding in a dynamic environment. To exemplify, a budding Olympic athlete might observe his/her competitor regularly posting strenuous workout videos on social media but instead of dwelling on the feelings of jealousy, envy, or inferiority, the same budding athlete would rather choose to work extra hours in order to achieve optimum level of performance. This

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can happen only when athletes are aware of their emotions through self-awareness and accordingly know what to respond to and what cannot be changed.

Performance is the end target for an athlete. Athletes' on-field performance is determined by the amalgamation of their off-field activities such as diet, recovery, sleep, etc. An athlete's psychological profile plays an important role in determining the performance of an athlete such as athletes who are resilient are likely to be grittier during challenging times such as career-ending injuries. Stoic athletes are likely to focus on the moment rather than dwelling on the past or getting anxious about future mistakes. This mindfulness can enhance athlete's focus and improve their athletic performance according to Irvine, (2019). Furthermore, as reported by Janal, (1996) the principles of stoicism help athletes to adjust their mindset to different circumstances that might be uncertain.

Emotions play an indispensable role in determining athletic performance (1-3). Competitive sport is characterized by an emotion-laden environment (4, 5). "Emotions can be understood as a complex set of interactions among subjective and objective factors, mediated by neural-hormonal systems, which can a) give rise to affective experiences such as feelings of arousal, pleasure/displeasure; b) generate cognitive processes such as emotionally relevant perceptual effects, appraisals, labeling processes; c) activate widespread physiological adjustments to the arousing conditions; and d) lead to behavior that is often, but not always, expressive, goal-directed and adaptive" (6, 7). As prior research has explicitly stated emotions influence performance through impacting perception, cognition, motivation, and behaviour hence which can enhance or debilitate performance (8, 9). Hence, sports psychology incorporates the understanding of emotions that can impact an athlete's performance (10). Sports psychologists use emotional intelligence as the most reliable construct for understanding the regulation and monitoring of emotions among athletes.

Emotional intelligence (EI) is defined as "the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others" (11). The EI concept was pioneered by Mayer and Salovey in the scientific literature in the 1990's which was popularized by Daniel Goleman (12). This concept has surpassed the overestimation of intelligence as emotional intelligence was proved to be more efficacious in order to be successful (13). Prior research has proved EI as the predictor of academic achievement, well-being, job satisfaction, and better health (14).

Another approach used by athletes to stay in control is using stoic principles which works as the operating system for thriving in high-stress environments. Coaches and athletes may be unfamiliar with the concept of stoicism however, all elite athletes practice it by bearing pain without complaint, staying in the moment, and controlling the controllable.

Athletes are faced with numerous challenges in their day-to-day lives outside and within sports. The challenges can be financial, social, emotional, personal, and other such as relationship issues, the adjustment in camps, injury, traveling, sponsors' availability, etc (15-17). However, performance is strongly influenced by emotions (18, 19). Athletes have to interact with coaches, teammates, and others to facilitate smooth conversation. In order to achieve optimal performance, athletes have to work on their energy levels and emotions. Prior literature has witnessed the effects of emotional intelligence on team performance and individual performance across different sports such as cricket, basketball, tennis, ballet, etc (20-23). Crombie and his co-authors have analyzed the positive correlation between emotional intelligence and team performance of cricketers. The relation of emotional intelligence has been analyzed in athletic performance through the results of six studies (24, 25). However, since more rigorous and scientific work if required to establish its impact on performance therefore this paper documents the same along with other potential variables (26).

The modern notion of stoicism was introduced by Wagstaff & Rowledge (1995) (27). Furnham (28) defines stoicism as the non-involvement of emotional expressivity and indifference to death (29). The philosophical teaching of stoicism is practiced in non-western countries including developing and developed countries (30-33). The vision of sport is consistent with the values of stoicism as per stoic philosopher (34). Winning is healthy however stoic philosopher focuses on the virtue part of the sport. Playing for fun becomes important as compared to just winning. As Seneca

puts it, "To win true freedom you must be a slave to philosophy …emancipated on the spot, the very service of philosophy being true freedom" (Letters VIII).

This encapsulates the development of virtue in sport. To exemplify this, if the boxer intentionally reacts angrily toward their opponent, the opponent won't retaliate back but rather play productively (35). This can happen only when self-control is developed which happens through exploration and regulation of one's own emotions (36-39). Hence, emotional intelligence and stoicism go hand in hand for better performance with optimization use of emotions. From a stoic point of view, the development of character is indispensable than just winning as the former involves control of the values and character both on and off of the field. Research has indicated gender differences in stoicism have been studied, where men tend to demonstrate stoicism more often as compared to females however the literature has presented inconsistent studies with respect to gender hence the need to explore the moderating role of gender is warranted (40, 41).

While the theoretical underpinnings of emotional intelligence and stoicism in sports on athletic performance are given considerable attention in a Western context, however, there's a notable gap in the literature when it comes to the Indian context. The dearth of research is there on emotional intelligence, stoicism, and performance with respect to moderating the role of gender which needs thorough empirical and scientific findings (see Figure 1).

Therefore, we put forth the following testable hypotheses:

a) There would be a significant moderating effect of gender on the relationship between stoicism and performance among amateur athletes.

b) There would be a significant moderating effect of gender on the relationship between emotional intelligence and performance among amateur athletes.

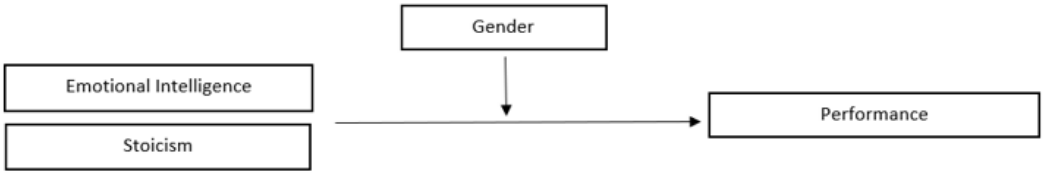

Figure 1. Proposed model (self).

MATERIALS AND METHODS

Participants and Procedure. The permission to conduct the research was provided by the ethics committee of the university. It was apprised to them that the details will be fictitious and anonymous and they can discontinue at any time. Respondents were briefly informed about the purpose of the study and informed consent was provided by the athletes. The field investigator was the primary author of this research who conducted a priori-prospective analysis to determine the sample size through G*Power 3.1 software (42). Overall, 453 participants were recruited indicating that this sample size will enable us to identify a small effect of R2 increase of 0.05 (alpha=0.05). Convenient sampling was employed to recruit the participants. Additionally, Google Forms were also distributed through a QR scan-based developed android app. Participants in this study were recruited from various stadiums across Delhi-NCR including Jawaharlal Nehru, Indira Gandhi Stadium, Tau Devi Lal Stadium, and Thyagaraj Stadium were approached to identify the athletes across different sports such as weightlifting, track and field athletes, wrestling, and boxing. The average time for survey completion was about 20 minutes. Also, the technique used to perform moderation analysis was Johnson Neyman which helped in understanding the statistically significant effects of the independent variable on the dependent variable by finding a cut-off point on the moderator. Respondents were between the ages of 18 and 29 years. The ethnicity of the athletes was Indian.

Total number of female participants were (n=118; 26%) whereas male participants were (n=335; 74%). The athletes were from different religions such as Hinduism (n=318; 70.2%), Islam (n=9; 2%), Christianity (n=34; 7.5%), and Sikhism (n=92; 20.3%). The research sample comprised of athletes who had done their graduation (BA) were (n=129; 28.5%) more than master level graduates (n=48; 10.6%) and others (n=173; 38.2%) including 10th pass (n=103; 22.7%). The highest level at which athletes played were nationals (n=159; 35.1%) more than state (n=122; 26.9%), zonal (n=157; 34.7%), and international level players (n=15; 3.3%). Also, athletes who had injuries were (n=214; 47.2%) as compared to non-injured ones (n=239; 52.8%). Athletes who were from rural areas were (n=266; 58.7%) as compared to urban areas (n=187; 41.3%). Lastly, those athletes who were from individual games were (n=254; 56.1%) as compared to team games (n=199; 43.9%).

Measures. Pathak-Wieten Stoicism Ideology Scale: It is developed by Pathak and his co-authors (43). It is measured using a 5-point Likert scale with the following responses: "disagree", “somewhat disagree”, “not sure”, “somewhat agree”, and “agree”. The coding of the responses is done from 0 (disagree) to 4 (agree). The responses were recoded as -2 (disagree) to +2 (agree). Positive scores indicate stoic ideology whereas negative scores indicate rejection of stoic ideology. The reliability and validity of the scale are sound and reliable.

Brief Emotional Intelligence Scale (BEIS): It is developed by Davies et al., (44) to assess emotional intelligence. It is measured on a 5-point Likert scale anchored from 1=strongly agree to 5=strongly disagree. Only one item is reversely scored. The reliability and validity of the scale are sound and reliable.

Athlete’s Subjective Performance Scale (ASPS): To evaluate the satisfaction among athletes, the Athlete Subjective Performance Scale (ASPS) has been developed by Nahum and its co-authors (45). This scale measures six items about the performance satisfaction of athletes along with an extended one-item scale. The purpose of this measure is to understand general performance, team contribution, and personal ability. Although the scale was developed for team sports, with the permission of the author, the 2nd and 4th items had been removed in order to use it on individual sports.

Statistical analysis. Data was analyzed using SPSS software (version 22). The first step was initiated with the conduction of descriptive statistics which comprised of mean, and standard deviation of the scores from each scale. Further, the interaction effect between the moderator and the independent variable was discerned through Hayes' Process v4.2 (46) to evaluate the moderation analysis. Since a significant interaction had been detected hence, a simple slope analysis was conducted with different dimensions of the moderator. Through the suggestions of Hayes, the Johnson-Neyman technique was used to probe the interactions which helped in determining the score of the moderator between statistically significant and non-significant effects of grit on PED's.

RESULTS

SPSS PROCESS (Hayes, 2018) has been used to study the moderating effects of gender on the association between stoicism, emotional intelligence, and performance.

Moderation analysis was conducted to determine whether gender moderated the relationship between stoicism and performance. The overall moderation accounted for 70% of the variance [$F(3, 449)=11.216$, $p<0.01$], and gender moderated the relationship significantly (see Table 1). Hence, hypothesis 1 is accepted. This indicates that gender impacts indirectly the relationship between stoicism and the performance of the athletes. The indirect effect of gender as a moderator has an enhancing effect on the independent variable and the dependent variable which means it strengthens the relationship indirectly. As per the results interpreted, it has been found that male athletes who are able to focus on the controllable such as their own hard work, consistency for the training, and not engaging in doping, etc, rather than the uncontrollable such as weather, noise, etc, are more likely to effectuate better performance as compared to female stoic athletes. The simple slope analysis demonstrated that male athletes who are stoic are likely to perform better than female athletes (see Figure 2).

Table 1. Moderation effect of gender on the relationship between stoicism and Performance

	B [95% CI]	SE	T	P
Stoicism	0.13 (0.83; 0.17)	0.02	5.39	<0.001
Gender	0.40 (-1.23; 0.42)	0.42	0.95	0.5172
Stoicism x Gender	0.08 (0.02; 0.19)	0.05	1.44	<0.001
R^2	0.70			
F(3, 449)	11.216			
P	<0.001			

Dependent Variable: Performance

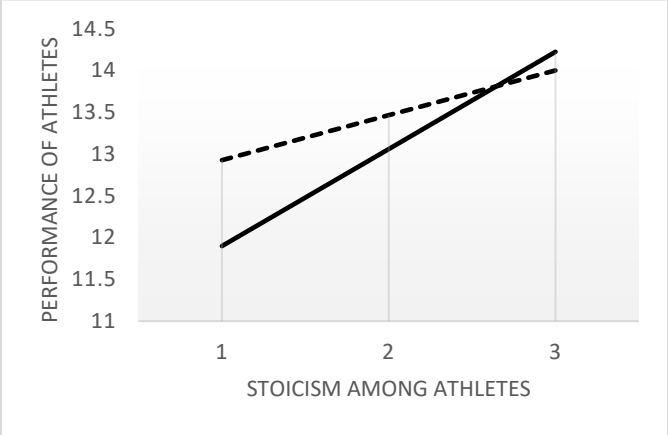

Figure 2. Simple slopes analysis of the moderating role of gender in the link between stoicism and performance.

Moderation analysis was conducted to determine whether gender moderated the relationship between emotional intelligence and performance. The overall moderation accounted for 96% of the variance [F(3, 449)=15.951, p<0.01], and gender moderated the relationship significantly (see Table 2). Hence, hypothesis 2 is accepted. The indirect effect of gender as a moderator has an enhancing effect on the independent variable and the dependent variable which means it strengthens the relationship indirectly. As per the results interpreted, it has been found that male athletes who are able to manage their emotions and be more mindful such as during bouts when they encounter an aggressive competitor, instead of reacting, they will choose to respond through technique and tactics are more likely to effectuate better performance as compared to female emotionally intelligent athletes. The simple slope analysis demonstrated that male athletes who are emotionally intelligent are likely to perform better than female athletes (see Figure 3).

Table 2. Moderation effect of gender on the relationship between emotional intelligence and Performance

	B [95% CI]	SE	T	P
Emotional intelligence	0.21 (0.15; 0.27)	0.03	6.51	<0.001
Gender	0.46 (-1.23; 0.42)	0.41	0.13	0.001
Emotional intelligence x Gender	0.06 (0.10; 0.22)	0.08	0.74	<0.001
R^2	0.96			
F(3, 449)	15.951			
P	<0.001			

Dependent Variable: Performance

Figure 3. Simple slopes analysis of the moderating role of gender in the link between emotional intelligence and performance.

DISCUSSION

The modern notion of stoicism was introduced by Wagstaff and Rowledge who define it as emotional control, emotional non-involvement, and lack of emotional expressivity. Furnham holds a similar view of stoicism, defining it as the rejection or denial of emotions. The construct of stoicism has been minimally studied as yet (32, 35, 37). Therefore, it was intriguing to explore the same with the moderating effects of gender on performance in sports.

The present research investigated the moderating role of gender on the relationship between stoicism and performance. The hypothesis is accepted as gender moderated the relationship between the incidence and outcome variable wherein male athletes who are stoic are likely to have better performance as compared to female athletes. This goes in line with previous research by scholars who have demonstrated the existence of gender differences in stoicism (27, 40, 41). According to them, men have a tendency to demonstrate stoicism more often and more intensively. Although, age differences in stoicism have not been investigated to date.

Emotional intelligence is of paramount importance in sports. As prior research done by Lane and his co-authors, suggests that athletes reporting high scores of self-report emotional intelligence tend to experience pleasant emotions. Emotional intelligence might help athletes recognize which emotional states help performance. Findings provide some preliminary evidence that trait emotional intelligence and cortisol secretion are important in athlete responses to pressure situations.

The second hypothesis that was subjected to testing was that there would be a significant moderating effect of emotional intelligence on the relationship between emotional intelligence and performance. This hypothesis stands accepted as gender moderated the relationship between the incidence and outcome variable wherein male athletes who are more emotionally intelligent and likely to deliver better performance as compared to female athletes. This goes in line with research done by Arribas-Galarraga and his co-authors who have concluded that men scored higher than women in emotional control and regulation. However, some studies suggest further lines of research in emotional intelligence in the field of sports according to gender (47, 48). However, studies by Merino and his co-authors (49) found differing levels of emotional intelligence among male and female athletes according to their competitive level; higher-level male athletes showed higher emotional intelligence than the lower levels, but higher-level female athletes demonstrated increased emotional awareness and emotional clarity. It should be noted that higher emotional awareness scores are associated with excessive reactions to negative emotions (50) and poorer emotional adjustment (51). Our results support the idea that different strategies according to gender should be considered in the context of sports to improve performance-related emotional intelligence skills (52-55).

CONCLUSION

Overall, the results suggested that gender does moderate between stoicism, emotional intelligence, and performance of amateur athletes.

The present study highlights the importance of gender which can impact the relationship between stoicism and performance. As results indicated that stoic male athletes are likely to perform than stoic female athletes. Another finding of this study has explicitly stated that emotionally intelligent males are likely to deliver better performance as compared to emotionally intelligent females. In the future, certain stoic-based interventions can be developed for budding athletes which will help them to focus on what can be controlled and what cannot be as they would not engage in rumination otherwise. Also, workshops on how to be more self-aware which would make the athletes more emotionally intelligent can be conducted in the future by SAI.

The present research acknowledges a few limitations such as the study is a cross-sectional design focusing on self-reporting at one point of time which could affect the causal relationship between the variables. This could result in common method variance. The participants could have been recruited from different states of India. Also, only those participants were recruited who were proficient in the English language which might have affected the quality of their responses. Mix method approach could have given an in-depth exploration of the phenomenon.

The primary contribution of this research is to identify gender as a moderator between stoicism, emotional intelligence, and performance. Practically, such understanding will enable coaches and sports psychologists to understand the importance of stoic principles and the need for the regulation of emotions. The same can be instilled in the athletes through an intervention. Consequently, this research does not alone advocate the contributing factor of the psychological constructs in promoting optimal performance. There are other facilitators as well such as proper diet, nutrition, sleep, cognitive and metacognitive skills for planning, regulation, etc. Furthermore, the findings of the current research could be utilised in development of the nuanced psychosocial interventions and programs to help young elite athletes in dealing with emotions arising due to the pressure of winning consequently enhancing their sports performance.

The current research would also help future researchers to replicate the present study by using longitudinal or qualitative research designs.

APPLICABLE REMARKS

- The necessity of building an intervention plan that focuses on developing stoic principles and emotional intelligence among budding athletes.
- Provide the players with psychological skills, through training and educational meetings that advocate the efficacy of stoic principles.
- The necessity to provide the findings of this study to the Federation concerned with the game and the Olympic Committee.
- The necessity of holding workshops and training courses for workers in the sports field, particularly track and field, and various sports.

ACKNOWLEDGMENTS

The author is thankful to all the enthusiastic athletes who have voluntarily taken an interest in participating in the research.

AUTHORS' CONTRIBUTIONS

Study concept and design: Kashish Pandey. Acquisition of data: Kashish Pandey. Analysis and interpretation of data: Kashish Pandey. Drafting the manuscript: Kashish Pandey. Critical revision of the manuscript for important intellectual content: Kashish Pandey. Statistical analysis: Kashish Pandey. Administrative, technical, and material support: Kashish Pandey. Study supervision: Khusboo K.

CONFLICT OF INTEREST

There was the strict absence of any kind of financial/emotional/personal interest which might have led to a conflict of interest.

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