



RESEARCH PAPER

Assessing Emotional Intelligence and Academic Performance among Male Field Hockey Varsity Student Athletes and Non-Athletes

Muhammad Farooq Shahan¹ Dr. Asif Ali*² Mohsin Rasool³

1. BS. Physical Education & Sports Sciences student at Government College University Lahore, Punjab, Pakistan.
2. Associate Professor, (Corresponding Author) Department of Physical Education & Sports Sciences Government College University Lahore, Punjab, Pakistan
3. BS. Physical Education & Sports Sciences student at Government College University Lahore, Punjab, Pakistan

***Corresponding Author** asif.ali@gcu.edu.pk

ABSTRACT

The Objective of this study was to examine the association between field hockey sport experience and emotional intelligence among men field hockey varsity student athletes and impact of emotional intelligence on academic performance among field hockey varsity athletes and non-athletes. 110 university students from Lahore (Pakistan), participated in this cross-sectional study, all of them were men's. The brief emotional intelligence scale and academic performance scale and demographic questionnaires were used in order to gather data. The study's findings showed a significant relationship between playing experience of field hockey and emotional intelligence among men field hockey varsity student athletes, and as well as a significant positive association between emotional intelligence and academic performance among men field hockey varsity student athletes and non-athletes. These results emphasize the importance of playing field hockey in fostering emotional intelligence, which may help students in their academic success.

Key words Academic Performance, Emotional Intelligence, Field Hockey Varsity Student, Non-Athlete, Sports Experience

Introduction

Field Hockey considered as a popular outdoor game in which two opposing teams of 11 players each attempt to score goals by kicking a tiny, hard ball with sticks that are bent at the striking end Sharma and Sharma (2022) and modifying the game's time phases from 2x35 minute halves to 4x15 minute quarters (Morencos et al., 2018). A high-intensity team sport that require players to sprint, run, and change directions often (Ihsan et al., 2021). Hockey has recently adopted new regulations, making it one of the fastest-paced team sports. As a result, good anticipation, adaptation, and response depend on strong perceptual-cognitive abilities (Morris-Binelli et al., 2020).

Emotional Intelligence (EI) as a person's natural ability to navigate and self-regulate their emotions, be aware of other's emotions, and use their own and others emotions as the basis for their actions and thoughts (Goleman, 1996). Emotions have an impact on motivation, behavior, perception, cognition, personal feeling, and decision-making, which may either improve or impair athletic performance (Jekauc, 2018; Jekauc & Brand, 2017). Study acknowledges that a high level of EI also includes complementary qualities like a person's feeling of resilience, optimism, and geniality (Serrat & Serrat, 2017). Numerous studies have emphasized the impact of EI as a predictor in key areas including academic success, work performance, leadership, stress and improved health (Keefer et al., 2018).

Academic performance has been defined as a term used to describe a student's level of accomplishment in their academic endeavor's, including coursework, tests, projects, and

other academic activities (Cho & Bridgeman, 2012). Since many students struggle academically owing to a lack of self-assurance, self-control, poor self-esteem, and excessive anxiety, it is important to understand the importance of emotions in achieving success in a variety of interpersonal and career-related field (Khatoon et al., 2020). EI is essential for success in everyday life and the workplace, including in the classroom, it has gained a lot of attention in academia. Recent research has demonstrated the importance of non-cognitive factors like emotional intelligence in determining academic achievement (Shinwari et al., 2023).

According to Zamanian et al. (2011), the practice of sport involves emotions since athletes may continuously regulate and manage their emotions under various training and competing circumstances. Playing sports on regular basis might be mechanism for the developing of EI (Campo et al., 2016). Experiences in sports are fundamentally emotional. Different emotions are triggered by winning, losing, outperforming yourself, and overcoming an injury (Magrum et al., 2019). Participating in sports offers many benefits for both the body and mind. Additionally, being involved in sports can have a positive impact on academic performance (Dobersek & Arellano, 2017).

This study addresses the research gap on the association between EI and academic performance in men field hockey varsity student athletes and non-athletes and also addresses that there any relationship between field hockey sports experience and emotional intelligence. Despite prior studies, there was still uncertainty regarding various aspects of the relationship between sports experience and emotional intelligence (Castro-Sánchez et al., 2018; Szabo & Urbán, 2014; Vaughan et al., 2019). While EI and academic achievement have previously been the subject of research, there aren't many studies that specifically address this category of men field hockey varsity student athletes and non-athletes. This study attempts to fulfill research gap and advance our understanding in this particular population. .

The Objective of this study was to examine that, is there any Association between field hockey sports experience and emotional intelligence? And is there any Association between emotional intelligence and academic performance?

This study hold significance for several reasons as it shows the relation between EI and academic performance among male field hockey varsity student athletes and non-athletes. It shows following insights, field hockey sports participation plays role in the improvement of EI and hence effecting IQ. It shows whether the hard core training, extreme pressure while playing, continuously control and manage emotions during match or practices and maintenance of studies together effects the EI. This also show the significance of field hockey sport activities in person's development and progress, and it also helps in understanding the role of non-cognitive factors in educational success of students from different fields.

Literature Review

Prior research demonstrated that athletes have higher emotional intelligence than non-athletes, particularly in areas of assertiveness, self-awareness, empathy, and emotion regulation (Costarelli & Stamou, 2009; Szabo & Urbán, 2014). A study conducted by (Rodriguez-Romo et al., 2021) found that the male athletes were more likely to display higher EI if they trained harder and competed at a higher level.

Additionally it is stated that having a high EI might help team sport athletes to efficiently regulate their emotions in stressful situations and conflict during competition, while also boosting their self-confidence, attention, dedication, and empathy for others (Tinkler et al., 2021). Previous studies on the relationship of EI and combat sports showed

that combat sports helps to develop EI among combat sports player with respect to years of experience (Fernández et al., 2020; Szabo & Urbán, 2014).

Sports have a considerable impact on emotional intelligence levels due to their nature and participant's performance, suggesting a possible connection between sports and the growth of emotional intelligence (Stan et al., 2022). A Study conducted by Méndez-Giménez et al. (2022) demonstrated that a person's involvement in sports has an impact on their EI, exercise can enhance the capacity to regulate emotions and effective techniques for controlling one's emotions have a favorable effect on their EI.

According to the study, undergraduate's academic achievement and EI are strongly positively correlated (Suleman et al., 2019). Many studies have found a connection between adolescent student's great academic performance and having a higher level of EI (Brouzos et al., 2014; Downey et al., 2008). According to research conducted by Kolachina (2014) that there was a correlation between academic success and emotional intelligence.

Students with greater EI show more positive attitudes, self-discipline, and better time management when studying (Goh & Kim, 2021). The study's results showed a high positive link between each of its emotional intelligence categories, which suggests that student's academic performance is positively impacted by emotional intelligence (Pandey et al., 2019). Academic achievement was considerably boosted by analytical skills and emotional intelligence in student's athletes, indicating the necessity to develop these abilities in addition to athletic training (Yazdanpour et al., 2019).

Material and Methods

Study Design

The Nature of this research was quantitative cross sectional.

Sample and Population

There were 110 men students in the present research that range in age from 18 to 25. Data was collected from 17 departments at five major universities in Lahore using a purposive sampling technique. Five university hockey teams, each with 11 players and five substitutes, were chosen as the sample for the study. However, only data from 55 out of 80 players could be collected for various reasons (unavailable or not willing for giving their data) and a control group of non-athletes from the same universities. The inclusion criteria was that field hockey players who played at the Intervarsity level, National Level or International Level was included and must a part of university team and enrollment in a four-year BS program at the university was a requirement for all participants.

Instruments

Following Instruments were used for purpose of data collection from five (5) different universities of Lahore, which are even below:

Demographic

Demographic section consist of 16 items including name of university, study program, Cgpa of pervious semesters, gender, marital status, class sessions, mother education, father education, how would you describe the quality of your social support, family income status, area of residency, athletic status, highest level of participation in sports and sport experience.

Brief Emotional Intelligence Scale

The (BEIS-10) that was used designed by Davies et al. (2010) to measure emotional intelligence of men field hockey varsity student athletes and non-athletes. This scale (BEIS-10) consist of Ten-Items. This scale (BEIS-10) has offered as valid and reliable to measure emotional intelligence. The (BEIS-10) has 5 factors and have five rating categories, with 1 being "strongly disagree" and 5 being "strongly agree". The individual's means score of (BEIS-10) 5 factors were compared to identify the level of emotional intelligence among sample population.

Academic Performance Scale

The Academic Performance Scale that was used developed by (Carson Birchmeier) to measure the academic performance of men field hockey varsity student athletes and non-athletes . This Scale (APS) consisted of 8 items. Five responses from strongly agree to strongly disagree were presented against each question. The individual's global score or score categories, which was calculated by adding together all of their responses to the scale.

Data Collection

A self-administrated questionnaire with 2 others sections Emotional Intelligence scale and Academic Performance scale has been used to collect data from the targeted population. It should be explained to the participants that there participation was voluntarily and it will be ensured that the data collected from them were considered confidential and will not be shared or transferred to any third party. All data collected in the research was used for education research purposes and participants will not have any impact on their life for providing the data. If any participant has any question regarding the questions of the questionnaire, they can ask and they will guided thoroughly so that they will not complete or fill the research questionnaire without understand the questions. The researcher used a face-to-face strategy to obtain data from the participants. Each participant was given 15-20 minutes to complete all the items in the questionnaire. The questionnaires permission was granted by the concern researchers through email.

Data Analysis

Simple linear and multiple linear regression analysis were applied for data analysis and level of significance was determined using a P-value less than five and SPSS version 22 IBM Corp (2017) was used.

Result and Discussion

Table 1
Regression Coefficients of Field Hockey Sports Experience on Emotional Intelligence factors of Men Field Hockey Varsity Student Athletes

Dependent Variable (EI factors)	Predictor Variable	B	β	SE	R ²	P
Appraisal of own emotions	Sport Experience	.019	.057	.046	.003	.681
Appraisal of others emotions	Sport Experience	.024	.054	.061	.003	.698
Regulation of own Emotions	Sport Experience	-.067	-.141	.064	.020	.306

Regulation of others emotions	Sport Experience	.047	.090	.072	.008	.511
Utilization of Emotions	Sport Experience	.15*	.35	.055	.35	.010

Note EI; Emotional Intelligence *P <.05

The impact of field hockey sports experience on EI factor (Appraisal of Own Emotions) in male field hockey varsity student athletes (see table 1). The R^2 value of .003 revealed that the field hockey sports experience explained 0.3% variance in the appraisal of own emotions with $F(1, 53) = .171, p >.05$. The finding revealed that field hockey sports experience showed no significant relationship with appraisal of own emotions ($\beta = .057, p >.05$).

The impact of field hockey sports experience on EI factor (Appraisal of Others Emotions) in male field hockey varsity student athletes (see table 1). The R^2 value of .003 revealed that the field hockey sports experience explained 0.3% variance in the appraisal of others emotions with $F(1, 53) = .153, p >.05$. The finding revealed that field hockey sports experience showed no significant relationship with Appraisal of Others Emotions ($\beta = .054, p >.05$).

The impact of field hockey sports experience on EI factor (Regulation of Own Emotions) in male field hockey varsity student athletes (see table 1). The R^2 value of .020 revealed that the field hockey sports experience explained 2% variance in the regulation of own emotions with $F(1, 53) = 1.070, p >.05$. The finding revealed that field hockey sports experience showed no significant relationship with regulation of own emotions ($\beta = -.141, p >.05$).

The impact of field hockey sports experience on EI factor (Regulation of Others Emotions) in male field hockey varsity student athletes (see table 1). The R^2 value of .008 revealed that the field hockey sports experience explained 0.8% variance in the regulation of others emotions with $F(1, 53) = .437, p >.05$. The finding revealed that field hockey sports experience showed no significant relationship with regulation of others emotions ($\beta = .090, p >.05$).

The impact of field hockey sports experience on EI factor (Utilization of Emotions) in men field hockey varsity student athletes (see table 1). The predictor variable was field hockey sports experience and outcome was utilization of emotions which is dependent variable. The R^2 value of .35 revealed that the field hockey sports experience explained 35% variance in the utilization of emotions with $F(1, 53) = 7.186, p <.05$. The finding revealed that field hockey sports experience positively predicted utilization of emotions ($\beta = .346, p <.05$). The finding indicates that there was a positive significant relationship between field hockey sports experience and utilization of emotions.

The Study finding shows that field hockey sports experience and utilization of emotion (EI Factor) were positively significant. Field hockey sports experience increase person's ability to utilize and control their emotions in many different types of situations. The more field hockey sports experience men field hockey varsity student athletes have, the more they effectively use and utilize their emotions. So playing field hockey team sports develop your skills in how to handle and utilize your emotions. Field hockey sports experience increases, it increase the Emotional Intelligence of men field hockey varsity student athletes.

Table 2
Regression Coefficients of Emotional Intelligence factors on Academic Performance of Men Field Hockey Varsity Student Athletes

Dependent Variable	Predictor Variable EI(factors)	B	SE	T	P	95%CI
Academic Performance	Appraisal of Own Emotions	.126	.087	1.444	.155	[-.049, .300]
	Appraisal of Others Emotions	-.114	.070	-1.633	.109	[-.255, .026]
	Regulation of Own Emotions	.016	.063	.259	.797	[-.111, .144]
	Regulation of Others Emotions	.144	.059	2.434	.019	[.025, .262]
	Utilization of Emotions	.145	.072	2.007	.050	[.000, .290]

Note. CI: Confidence Interval; EI: Emotional Intelligence

The impact of EI factors on academic performance in men field hockey varsity student athletes (see table 2). The R^2 value of .270 revealed that the predictors explained 27% variance in the outcome variable with $F(5, 49) = 3.167, p = .007$. Finding revealed that (EI Factor) appraisal of own emotions relationship with academic performance was non-significant ($\beta = .178, p > .05$), (EI Factor) appraisal of others emotions relationship with academic performance was non-significant ($\beta = -.213, p > .05$), (EI Factor) regulation of Own emotions relationship with academic performance was non-significant ($\beta = .032, p > .05$), (EI Factor) regulation of others emotions has positive association with academic performance and their relationship was significant ($\beta = .315, p < .05$), and (EI Factor) utilization of emotions relationship with academic Performance was non-significant ($\beta = .258, p > .05$). The Study finding shows that emotional intelligence and academic performance has a positive association and higher EI associated with better academic performance in men field hockey varsity student athletes.

Table 3
Regression Coefficients of Emotional Intelligence factors on Academic Performance of Non-Athletes

Dependent Variable	Predictor Variables EI	B	SE	T	P	95%CI
Academic Performance	Appraisal of Own Emotions	.102	.054	1.873	.067	[-.007, .210]
	Appraisal of Others Emotions	.001	.053	.026	.980	[-.106, .108]
	Regulation of Own Emotions	-.013	.053	-.247	.806	[-.121, .094]
	Regulation of Others Emotions	.135	.051	2.648	.011	[.033, .238]
	Utilization of Emotions	.141	.055	2.585	.013	[.031, .251]

Note. CI: Confidence Interval; EI: Emotional Intelligence

The impact of EI factors on academic performance in non-Athletes (see table 3). The R^2 value of .282 revealed that the predictors explained 28% variance in the outcome variable with $F(5, 49) = 3.857, p = .005$. The finding revealed that (EI Factor) appraisal of own

emotions relationship with academic performance was non-significant ($\beta = .235, p > .05$), (EI Factor) appraisal of others emotions relationship with academic performance is non-significant ($\beta = .003, p > .05$), (EI Factor) regulation of own emotions relationship with academic performance was non-significant ($\beta = -.033, p > .05$), (EI Factor) regulation of others emotions has positive association with academic performance and their relationship was significant ($\beta = .322, p < .05$), and (EI Factor) utilization of emotions has positive association with academic performance and their relationship was significant ($\beta = .327, p < .05$). The study finding shows that EI and academic performance has a positive association and higher emotional intelligence associated with better Academic Performance in non-athletes.

Discussion

The purpose of this study was to inspect any association between playing experience of field hockey and emotional intelligence in men field hockey varsity student athletes. Another aspect was to explore association between emotional intelligence and academic performance. The findings showed that playing experience of field hockey led to better emotional intelligence in men field hockey varsity student athletes and the association of emotional intelligence and academic performance was observed to be significantly positive.

The findings concerning association between years of experience in participation in field hockey team sports and emotional intelligence emerged from this study were in line with previous studies demonstrated positive effect of athletic participation on EI. Previous studies on the relationship of EI and combat sports showed that combat sports helps to develop EI among combat sports player with respect to years of experience (Costarelli & Stamou, 2009; Fernández et al., 2020). Moreover, another study found that the male athletes were more likely to display higher emotional intelligence if they trained harder and competed at a higher level (Rodriguez-Romo et al., 2021).

On the basis of research findings it may be concluded that, emotions have an impact on motivation, behavior, perception, cognition, personal feeling, and decision-making, which may either improve or impair athletic performance Jekauc (2018). Hockey players may be able to detect and control their own emotions and they have to act quickly based on the offensive and defensive strategies of their opponents (Perlini & Halverson, 2006). According to study, outstanding hockey players frequently exhibit psychological traits including, self-confidence, effective anxiety management, good mental preparation, attention skills, and goal planning (Kruger, 2010). Playing sports on daily basis might be mechanism for the developing of EI (Campo et al., 2016).

The results acquired from this research related to the positive relationship between EI and academic performance, were aligned with previous studies which exhibit positive effect of EI on academic performance. As meta-analysis conducted by MacCann et al. (2020) and Sánchez-Álvarez et al. (2020) showed that academic performance has a positive relationship with emotional intelligence, however the degree of that association varies between EI categories. The study's results showed a high positive link between each of its EI categories, which suggests that student's academic performance is positively impacted by emotional intelligence (Pandey et al., 2019). According to the study, undergraduate's student academic achievement and emotional intelligence are strongly positively correlated (Suleman et al., 2019).

On the basis of research findings it may be concluded that, according to Goleman (1995), cognitive skills account for around 20% of learning and emotional intelligence for 80% of it. Other non-cognitive abilities that go beyond the academic abilities that impact success in academic achievement include attitude, motivation, personality traits, self-regulation, and social and emotional abilities (Brackett et al., 2011). Similar to this, personal

qualities like motivation and emotional self-regulation in university are linked to academic achievement, meaning that students who have greater motivation and have better emotional control tend to achieve higher academic goals (Pintrich & De Groot, 1990).

Conclusion

This study demonstrated a significant association between playing experience of field hockey and emotional intelligence among male field hockey varsity student athletes and showed a positive relationship between emotional intelligence and academic performance in male field hockey varsity players and non-athletes. These findings highlight the value of field hockey engagement in developing emotional intelligence, which can help students succeed academically.

Implications

Implications of these findings may include that participating in field hockey not only encourages physical health but also develops student's emotional intelligence automatically. Including field hockey sports in university is crucial because it develops well-rounded individuals who flourish in both their academic and social lives, with EI serving as a link between both domains. University students should be encouraged to take part in field hockey, so their emotional intelligence should develop and have a good impact on their academic performance.

Limitations

Although this study has provided insightful information, it is essential to acknowledge the limitations that should be considered. First off, only men's field hockey varsity student players and non-athletes participated in the research, which was conducted among university students in Lahore, Pakistan. This study is cross-sectional in nature, it can be difficult to make conclusions regarding the causal links between emotional intelligence and academic performance or playing field hockey and EI.

Recommendations

In order to improve the generalizability of these findings, future research should look at the relationship between sports experience and emotional intelligence across a larger spectrum of sports and gender. Researchers need to determine whether the association between playing hockey, emotional intelligence and academic performance has validity for both genders by comparing male and female field hockey player.

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