ORIGINAL ARTICLE

Unfolding the aggression and locus of control paradigm in sportspersons and non-sportspersons

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ABSTRACT

The present study investigated Aggression and Locus of Control on Combat Sports Persons, Non-Combat Sports Persons, and Non-Sports Persons. In this study, a sample of 240 individuals (80 Combat sports, 80 Non-Combat Sports & 80 Non-Sportspersons) was used through purposive sampling. The tools administered were the Buss and Perry Aggression Questionnaire by Arnold H. Buss and Mark Perry and Rotter's Locus of Control Scale by Julian Rotter respectively. The objective of the study was to investigate Aggression and Locus of Control in males and females from Combat, Non-Combat, and Non-Sports persons. This research also aims to explore the relationship between Aggression and Locus of Control. Mean, t-test, F-value (ANOVA), and correlation have been computed over SPSS-16. Results suggest that males from Combat have higher Aggression than people from non-sports and non-combat sports. There is also a significant difference between non-sports persons and sports people over the Locus of Control, sports persons showed internal locus of control compared to non-sports persons who were higher on external locus of control. The result also indicates a significant relationship between the anger dimension of the Aggression and Locus of Control.

Keywords: Sports psychology, Physical education, Anger, Combat sports, Non-combat sports.

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INTRODUCTION

As sports blend enjoyment with competitiveness, they are seen as essential components of life. Sports have long played a significant role in culture and society. It is significant for maintaining physical fitness, and there is now mounting evidence that it is beneficial for mental health. Any number of sports involve some level of aggressiveness, which can take many different forms, from physical to verbal. Experts and researchers have long disagreed on the significance of violence in sports. Some contend that an athlete's performance can be improved by positively directing their aggression. It may be possible for an athlete to harness their aggressive instincts to push himself to the edge and achieve greater success. Some contend that aggressive behaviour in sports might have adverse effects both on and off the pitch. Excessive hostility on the pitch can result in injuries, violence, and unsportsmanlike behaviour. The term "*aggression*" is used in sports in numerous different ways. Gill, Williams, and Reifsteck (2017) claim that the word seems to trigger automatic associations as well as positive or negative emotional reactions and value judgments. Many sports psychologists (e.g., Widmeyer, Dorsch, Bray, & McGuire, 2002) define assertive behaviours as playing within the rules with high intensity and emotion but without intent to cause harm. This includes what many refer to as instances of good aggression in sports, such as driving hard to the basket in basketball. Husman & Silva (1984) further distinguish between assertiveness and aggression. To be assertive, one must act in a way that may appear antagonistic to an opponent but does not truly injure them. Strong physical play is often characterized by coaches as aggressive, but in reality, it is assertive; it is played under the rules and is done with no malicious intent. The purpose to cause harm distinguishes aggression from assertion. When an athlete uses legal tactics to accomplish their aims without intending to hurt them, their behaviour is assertive rather than aggressive. The goal of assertiveness is not to hurt the other person; rather, it is to establish power. Athletes who are pushed to be extremely aggressive off the pitch can be more prone to use violence in their personal lives. various studies have demonstrated that males who play organized sports behave more aggressively than men who do not, in both athletic and non-athletic circumstances. These actions consist of physical hostility, sexual assault, and bullying (Forbes, Adams-Curtis, Pakalka, & White, 2006). One possible explanation for their heightened hostility and inclination towards violence could be the masculine social norms associated with sports teams (Coulomb-Cabagno & Rascle, 2006; Koss, 1993; Sonderlund et al., 2014; Steinfeldt et al., 2012).

The degree to which people think they influence the things that happen in their lives is known as their locus of control. In his theory of social learning, Julian Rotter was the first to suggest the idea of locus of control, or LOC. According to Rutkowska and Gierczuk (2014), human action is influenced by both the objective accounts of occurrences and the subjective interpretations placed on them. The personality dimension that is on the spectrum between internal and external control over behaviour is known as LOC, as defined by Rotter. LOC is a person's perception of their degree of control over the results of their behaviour (Holden, Forester, Williford, and Reilly, 2019). The features of an individual's personality dictate the source of control, which can be either internal or external (Theberge, 2008). The fundamental component of understanding how people live in the world is their conviction that they have control over the events that affect them (Shapiro, Schwartz, & Austin, 1996).

To find out if playing sports has any effect on this psychological aspect, the locus of control was examined. Individual's LOC can be conceptualized as either internal or external (Onu, Osogwa, Obetta, 2013). Athletes who have an internal locus of control think that their efforts and actions are what make them successful or unsuccessful in sports. Athletes can have a greater sense of internal locus of control by their coaches and sports psychologists highlighting the value of practice, effort, and accepting accountability for their performance. Additionally, they can teach athletes to pay more attention to the things they can control, such

as their preparation and technique, than to outside influences. All things considered, athletes may benefit from cultivating a stronger internal locus of control since it can increase their drive, resiliency, and optimistic outlook. There was no discernible difference in LOC between athletes who participated in combat and non-combat sports, according to Kishore's 2016 research. The locus of control is also influenced by the kind of sport and the type of event (team or single). A higher external locus of control was demonstrated by athletes who competed in team events (Cartel, Kozak, 2017, Yesilyaprak, 2004). The present study explored the overall aggression & Locus of control of sportspersons and non-sportspersons. It further divided the sports group into two, combat and non-combat sports to study whether the level of physical contact and nature of the game have any impact of the variables chosen. Both of the groups are further compared with non-sports persons to find whether participation in sports has any impact on aggression and locus of control. This study also examined the gender difference between the two variables and the relationship between Aggression and its dimension with Locus of control.

Rationale

The present study can deepen our awareness of the intricate interactions between aggressiveness and locus of control by examining these concepts through the lenses of gender and sport. This will ultimately improve our understanding of human behaviour in sports and other contexts. Many sports contain some degree of aggression, which can manifest in a variety of ways, comprising verbal as well as physical. Regarding the relevance of aggression in sports, experts and researchers have long debated. Some contend that properly channelling animosity toward an opponent might enhance an athlete's performance. Athletes who learn to control their aggression may be able to push themselves to the limit and perform at a higher level. Some claim that aggressive attitudes in sports could have negative consequences off the pitch as much as on it. The degree to which people think they influence the things that happen in their lives is known as their locus of control. When it comes to sports, an athlete's locus of control can greatly impact their thinking and strategy. To find out if playing sports has any effect on this psychological aspect, locus of control was explored. Athletes who have an internal locus of control think that their acts and efforts decide whether they succeed or fail in sports. They are more inclined to accept accountability for their actions and think that practice and dedication will help them become better. Athletes can have a greater sense of internal locus of control by their coaches and sports psychologists highlighting the value of practice, effort, and accepting accountability for their performance. They can also teach athletes to train their attention to be directed towards the things they can control, including their own preparation and technique, as opposed to outside influences. All things considered, athletes may benefit from cultivating a stronger internal locus of control since it can increase their drive, resiliency, and optimistic outlook. In the present study, the sports persons were divided into two groups comprising, combat and non-combat sports to study whether the level of physical contact and nature of the game have any impact on the variables chosen. Both groups are further compared with non-sports persons to find whether participation in sports has any impact on aggression and locus of control. Understanding aggression and locus of control in sports contexts can inform coaching strategies, sports psychology interventions, and policies to promote positive behaviour and reduce aggression in sports.

The present research was exploratory thus it was determined to drop the research hypotheses in this study. Since there aren't many publications on combat sports, it was anticipated that the analyses will greatly expand the body of knowledge already available on the topic (Harwood et al., 2017; Basiaga-Pasternak et al., 2020). It should be noted that, particularly in the past, the topic of aggressiveness and its connection to locus of control has hardly ever been brought up. Without a doubt, all the elements served as motivation to undertake the present study.

Research questions

The research study has its basis on a few research questions which served as steppingstones for the basic idea of this exploratory study:

- Is there a significant difference in aggression levels and locus of control between males and females?
- Does the type of sports (combat sports, non-combat sports, and non-sportsperson) have any significant difference in aggression and locus of control?
- Do sportspersons in general exhibit higher levels of aggression compared to sportspersons?
- Do sportspersons and non-sportspersons exhibit significant differences in locus of control?
- Is there a link between aggression (its 4 dimensions) and locus of control?

Objectives

- To investigate overall aggression and Locus of control among combat, non-combat, & non-sports persons.
- To examine Aggression and Locus of control between male and female persons.
- To study Overall Aggression and Locus of Control between male combat & female combat sports; male & female non-combat sportspersons and male & female non-sportspersons.
- To investigate the Overall Aggression and Locus of Control between male combat, Male non-combat, and male non-sports persons.
- To investigate the Overall Aggression and Locus of Control between female combat, female non-combat, and female non-sports persons.
- To investigate the relationship between Aggression and its dimensions and locus of control.

Sample

The sample size consisted of 240 individuals out of which 160 belonged to the sports category further divided into 80 Combat, 80 Non-Combat, and 80 Non-Sports people were chosen. All the 3 categories have the same proportion of males and females i.e. 40 belonging to the age group of 16-30 years old.

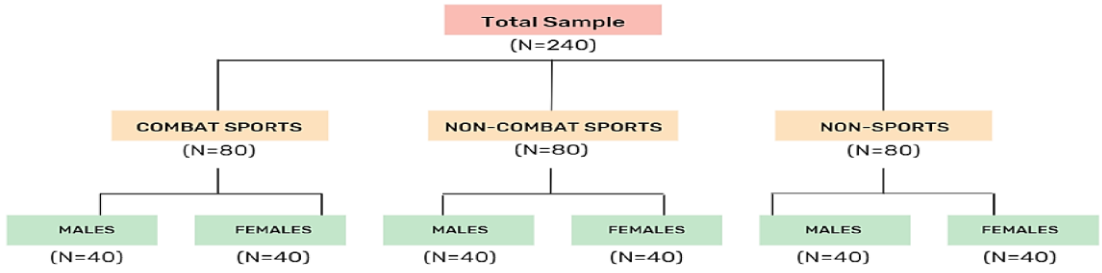

Figure 1. Description of the sample.

Tools

The Buss-Perry Aggression Questionnaire (BPAQ)

Developed by Arnold Buss & Robert Perry, 1992 is composed of 29 items, each rated on a 5-point Likert-type scale. The BPAQ has a score range of 29 to 145. Higher scores suggest more aggressive behaviour. The BPAQ is divided into four subscales: hostility, anger, verbal aggression, and physical aggressiveness.

The Rotter's locus of control scale

Created by Julian Rotter in 1966 measures a person's locus of control, Rotter's locus of control scale (Hindi Version) was developed by Dr. Anand Kumar and Dr. S.N. Srivastava. This forced-choice test consists of 29

pairs of statements, 23 of which are scored. The scale's possible scores fall between 0 and 23. The split-half reliability of the scale is between 0.65 and 0.79. Estimates for reliability via the split-half method correlated by the Spearman-Brown formula are equal to 0.73 and test-retest samples six weeks apart are equal to 0.67. The test reported good discriminant validity. Internal consistency: The scale has high internal consistency, with Cronbach's alpha coefficients ranging from 0.60 to 0.80 in various studies. The association between an individual's locus of control and numerous outcomes, such as academic success, work happiness, and mental health, has been extensively researched using Rotter's locus of control measure.

Procedure

For the study, demographic information(comprising age, gender , sports, training experience, rank level, etc.), the Buss and Perry Aggression Questionnaire, and Locus of Control were administered to combat, non-combat, and non-sportspersons. The form had two sections, which measured the demographics and consent, and the scores for Overall Aggression and Locus of Control. After obtaining permission and support from the coach, or organization representatives, researchers approached athletes. Informed consent was obtained, and participation was voluntary. The form also comprised information for the sportspersons were further divided into combat & non-combat sportspersons. Combat sports, which were considered are Boxing, Wrestling, MMA, Jitsu, Taekwondo, and karate. Non-combat sports comprised Basketball, Cricket, Volleyball, Table Tennis, and badminton. Owing to the above-mentioned inclusion criteria and conditions, and lack of complete documentation, results obtained from 240 respondents underwent final analysis. Data were organized, gathered, and categorically separated after data gathering was complete. The analysis was carried out on SPSS -16.

RESULTS

The present study investigates overall Aggression and locus of control of 240 individuals belonging to combat, non-combat, and non-sports persons. Once the data was collected, analysis was carried out through descriptive (Mean & SD) as well as inferential statistics, F (ANOVA) to find out if there was any significant difference among the three groups, post hoc (Tuckey) test was analysed to further find out which groups were showing a significant difference in Overall Aggression and Locus of control. Student t-test was carried out to see the gender differences among the groups on Overall Aggression & Locus of Control. Table 1 depicts the demographic details of the participants.

Table 1. Demographic details of the sample.

Variable		**Frequency (N)**	**Percentage**
Age	16-20	92	38.3 %
	21-25	82	34.16 %
	26-30	66	27.5 %
Total		**240**	
Combat Sports	Boxing	10	12.5 %
	MMA	40	50 %
	Wrestling	4	5 %
	Taekwondo	8	10 %
	Jitsu	4	5 %
	Karate	14	17.5 %
Total		**80**	
Non - Combat Sports	Basketball	6	7.5 %
	Cricket	9	11.25 %
	Volleyball	7	8.75 %
	Table tennis	11	13.75 %

	Badminton	16	20 %
	Football	13	16.25 %
	Calisthenics	12	15 %
	Archery	6	7.5 %
Total		**80**	
Level in sports (Combat sports)	District /High school/Univ	26	32.5 %
	State	23	28.75 %
	National	23	28.75 %
	International	8	10 %
Total		**80**	
Level in sports (Non - Combat sports)	District /High school/Univ	41	51.25 %
	State	14	17.50 %
	National	21	26.25 %
	International	4	5 %
Total		**80**	

Table 2. Mean, SD, & F-Value on overall aggression & locus of control among combat, non-combat, & non-sports persons.

Dimensions	**Combat sports N = 80**		**Non-combat sports N = 80**		**Non-sports N = 80**		**F-value (N = 240) df = 237, 2**	**Post hoc (Tuckey)**
	Mean	SD	Mean	SD	Mean	SD		
Overall aggression	82	14.93	79.04	15.33	79.75	13.49	0.896	
Locus of control	11.40	3.40	11.24	2.94	12.79	2.58	6.493**	C > B C > A

*Note. *p < .05, **p < .01. A- Combat sports, B - Non-Combat sports, C- Non-Sports persons.*

Overall aggression has no significant difference on combat, non-combat and non-sport persons. Whereas locus of control shows significant difference at .001 level among non-combat and non-sport persons.

Table 3. Mean, SD, and t-value of males & females on overall aggression and locus of control.

Dimensions	**Males (N = 120)**		**Females (N = 120)**		**t-value**
	Mean	SD	Mean	SD	
Overall aggression	83	12.2	77.6	16.2	2.8*
Locus of control	11.62	3.11	12	3	0.92

*Note. *p < .05, **p < .01.*

Table 4. Mean, SD, & t-value on overall aggression & locus of control b/w males & females in combat sports.

Dimensions	**Males (combat sports) N = 40**		**Females (combat sports) N = 40**		**t-value**
	Mean	SD	Mean	SD	
Overall aggression	88.05	13.7	75.95	13.76	3.94***
Locus of control	11.30	3.5	11.50	3.3	0.26

*Note. *p < .05, **p < .01.*

From the Table 3, it can be inferred that overall aggression is significantly higher in males than in females. Whereas locus of control is non-significant at .01 and .05 level when compared between male and female.

Results in Table 4 indicate a significant difference in overall aggression in males than in females of combat sports. Whereas locus of control is non-significant at .01 and .05 level between genders, male and female of combat sports. It is also inferred that both males and females acquire an internal locus of control as the scores lie in the range of less than or equal to 12.

Table 5a. Mean, SD, and t-value on overall aggression and locus of control among males and females in non-combat sports.

Dimensions	Males (non-combat) N = 40		Females (non-combat) N = 40		t-value
	Mean	SD	Mean	SD	
Overall aggression	78	11.8	80	18.3	0.60
Locus of control	10.85	3.1	11.62	2.65	1.17

*Note. *p < .05, **p < .01.*

Results indicate that male & female of noncombat sportspersons' is non-significant on overall aggression and locus of control.

Table 5b. Mean, SD & t-value of male & female non-sports person on overall aggression & locus of control.

Dimensions	Males N = 40		Females N = 40		t-value
	Mean	SD	Mean	SD	
Overall aggression	82.75	9	76.75	16.4	2.02
Locus of control	11.72	2.25	11.85	3	0.21

*Note. *p < .05, **p < .01.*

Results indicate a significant difference at .01 level between males & females on overall aggression & locus of control.

Table 6. Mean, SD, and F-Value of aggression & locus of control among males from combat, non-combat, and non-sports persons.

Dimensions	Combat sports Male (N = 40)		Non-combat male sports (N = 40)		Non-sports male (N = 40)		F-value	Post hoc (Tuckey)
	Mean	SD	Mean	SD	Mean	SD		
Overall aggression	88.05	13.689	78	11.797	82.75	8.96	7.45**	A > B
Locus of control	11.30	3.51	10.85	3.19	12.72	2.25	4.15	

Note. *p < .05, **p < .01. A- Combat sports, B - Non-Combat sports, C- Non-Sports persons.

Results indicate a significant difference at a .01 level in Overall Aggression among males of combat, non-combat, & non-sports persons. Post hoc test indicates on overall aggression significant difference is observed between the two groups at .01 level.

Table 7. Mean, SD, and F-Value on overall aggression and locus among females from combat, non-combat, and non-sports persons.

Dimensions	Combat sports (female) N = 40		Non-combat sports (female) N = 40		Non-sports (female) N = 40		F-value
	Mean	SD	Mean	SD	Mean	SD	
Overall aggression	75.95	13.769	80.08	18.300	76.75	16.439	0.723
Locus of control	11.50	3.28	11.62	2.65	12.85	2.90	2.53

Note. *p < .05, **p < .01.

From the Table 7, it can be inferred on overall aggression & Locus of control non-significant difference was observed in females of combat, non-combat, and non-sports persons.

Table 8. Relationship between aggression and locus of control.

	Locus of control	Physical aggression	Verbal aggression	Anger	Hostility	Total aggression
Locus of control	1	.093	.021	.191**	.083	.119

*Note. *p < .05, **p < .01.*

It is evident from the Table 8 that there exists a positive relationship between the dimension of Aggression i.e., anger at .01 level. This means that higher the scores in locus of control scale indicating higher the external locus of control higher will be the anger and vice-versa. The other scores show that there is no relationship found between locus of control and the other dimension of Aggression i.e., physical aggression, verbal aggression, and hostility.

DISCUSSION

Both culturally and economically, sports continue to play a significant part today. Sports are a creative transformation of human nature as it exists inherently. The present study aims to investigate aggression among combat, non-combat, and non-sports persons. Sports may be the only activity where aggressiveness is not only permitted but encouraged and viewed as proper behaviour in the world we live in today. Combat sports are seen as being more violent and aggressive by society than their counterparts.

The first objective states to study Overall Aggression and Locus of Control among combat, non-combat, and non-sports persons. Table 2 results suggested there is no significant difference in overall aggression levels among the three categories of combat, non-combat, and non-sports. In a research Deva. A et al. (2022), found no statistically significant difference in aggression between national-level combat sports competitors and non-combat competitors. Results indicate however when compared to non-sportspeople, participants in combat sports exhibit marginally higher overall aggression. The finding is consistent with the findings of Trivedi, R., & Pinto, E. (2015) which show sportspersons had higher aggression than non-contact sportspersons, thus the higher level of aggression was attributed to the higher aggression required in contact sports as its nature. It is also indicated by the results that non-sports persons have higher hostile aggression than combat sports persons. Given that aggression is a complex concept that can be influenced by a wide range of factors, including individual differences and situational factors, there may be no discernible difference in aggression levels between combat, non-combat, and non-sportspeople. There is no significant difference in aggression levels between combat and non-combat sports due to similar levels of physical exertion and competitive performance. These findings are consistent with the findings of Barczak et al. (2020), which indicate similar results that there is no significant difference in aggression based on the type of sports, combat, or non-combat.

Furthermore, non-sports persons have shown significantly higher scores on locus of control indicating having an external locus of control when compared to Combat sports persons and non-combat sportspersons. Kushalappa, A. (2019) researched the locus of control comparatively among athletes and non-athletes. The conclusion indicated that significant differences exist between athletes and nonathletes in terms of locus of control. There are several potential reasons for individuals who are not involved in sports having higher external locus of control like Lack of experience with goal setting and achievement, leading to believe that outcomes are largely determined by external factors. In contrast, individuals who participate in sports often set goals for themselves and work towards them, which can lead to a greater sense of control over their outcomes. Individuals who do not participate in sports may not receive as much feedback on their performance. In contrast, sports provide a structured environment for receiving feedback and evaluating performance, which can help individuals develop a greater sense of personal agency. On the contrary individuals in sports have a higher internal locus of control due to their Experience with goal-setting and achievement, Regular feedback and performance evaluation, Emphasis on personal effort and achievement, Opportunity for personal growth and development, and Positive reinforcement.

The second objective states to investigate Aggression between male and female persons. Table 3 shows males having significantly higher aggression than females. Males possess significantly higher overall aggression than their female counterparts. In a study, Sarn .K. S & Bhambri. E ,(2018) explored gender differences in aggression and its relationship with sleep. The total participants were 80 (35 females and 45 males) who were administered the Buss and Perry Aggression Questionnaire and Pittsburgh Sleep Quality Index. Results indicated a significant difference in aggression and Males showed higher levels of aggression than females. Cultural and social norms may encourage or discourage aggression in different ways for men and women. Overall, it's likely that the higher levels of aggression in males are influenced by a complex interplay of genetic, hormonal, environmental, and cultural factors, and the precise causes may vary depending on the individual and the context in which the aggression occurs. Males typically have higher levels of testosterone than females, which may contribute to their greater tendency toward aggression. In many cultures, there are specific gender roles and expectations that dictate how men and women should behave, these expectations may contribute to differences in aggression between males and females. Whereas there is no significant difference between males and females when it comes to locus of control. Locus of control refers to an individual's belief about the extent to which they can control the events and outcomes in their life. There is no inherent reason why men and women should have different locus of control beliefs. Research has shown that both men and women can have an internal or external locus of control beliefs. A study conducted by Mohanty, A. (2021), on the gender comparison in Locus of Control reveals similar results.

The third objective investigates the Overall Aggression & Locus of Control between males and females in combat, non-combat & non-sportspersons. Table 4 indicates males possess significantly higher overall aggression than their female counterparts. The fact that men and women may have distinct reasons for participating in combat sports is one explanation for this. Females may be more prone to participate in combat sports for fitness or self-defence purposes, but males may be more likely to consider them as a method to display their authority or masculinity, this variation in motivation may result in variations in aggressiveness. Whereas both genders show no significant impact on the locus of control. The results are consistent with the earlier stated findings by Mohanty, A. (2021). Moreover, both genders participating in combat sports show an internal locus of control. Combat sports may attract individuals who already have a strong internal locus of control, as these sports require a great deal of discipline, perseverance, and mental toughness. Combat sports athletes must be able to take responsibility for their own training, conditioning, and performance, and they must be able to cope with setbacks and challenges along the way. In addition, combat sports athletes may develop an internal locus of control through their participation in these sports. By training and competing, they gain a greater sense of control over their physical and mental abilities, as well as their performance outcomes. This sense of control can lead to a greater sense of personal responsibility and confidence in one's abilities.

Table 5a shows on overall aggression no significant difference was observed in either of the genders involved in non-combat sports. One possible explanation for this is that non-combat sports may attract individuals who are more interested in cooperation, teamwork, and skill development rather than competition and aggression. The result suggests that gender differences in these factors are generally less pronounced in non-combat sports compared to combat sports. This helps us to devise similar intervention training programs as both genders display similar psychological concepts of aggression and locus of control. Likewise in combat sports, both the genders displayed playing noncombat sports shows internal locus of control.

Table 5b shows there is no significant difference between males and females in Overall aggression involved in non-sports. The findings are in line with those made earlier by Mohanty, A. (2021), concluding that there

is no appreciable difference between men and women in this area. Also, it can be inferred from the Table 5b that both the genders playing no sports have an external locus of control. Samaei, L. and Ramezani, Z. N.(2012) studied the relationship between locus of control between athletic and non-athletic girls, yields consistent results Suggesting involvement in sports can help develop and manage internal locus of control in individuals, one possible explanation for this relationship is that sports involvement provides individuals with a sense of control over their own physical and mental abilities, through training and practice. On the other hand, a lack of involvement in sports may be associated with an external locus of control, as individuals may not have as many opportunities to develop a sense of control over their physical and mental abilities. Without the feedback and structure provided by sports involvement, individuals may be more likely to attribute their outcomes to external factors such as luck or circumstance, rather than their own actions and decisions.

The fourth objective states to examine Aggression among males & females belonging to combat, non-combat, and non-sports. Table 6 shows significantly higher scores, indicating combat sportsmen have significantly higher aggression than non-combat sportsmen and non-sports males. Basumatary, S. J. (2019), and Trivedi, R., & Pinto, E. (2015) conducted research that revealed similar results. Combat sports are inherently aggressive, as they involve physical contact and competition to defeat an opponent. Whereas all three categories show no significant difference in the locus of control. Table 6 shows consistency with the previously stated fact that sportspersons have an internal locus of control whereas non-sports persons have an external locus of control. The result is supported by similar research findings of Samaei, L. and Ramezani, Z.N.(2012). Sports participation can aid in the development of an internal locus of control by giving participants the chance to define objectives, make choices, and accept accountability for their own actions.

The fifth objective furthermore states to examine Aggression and Locus of Control among females belonging to combat, non-combat, and non-sports. Table 7 shows that type of game, whether combat, non-combat, or non-sports has no significant difference in aggression and locus of control over females. Unlike men, women may not have received the same socialization to aggressive and competitive behaviour. Gender-based preconceptions and expectations may affect how women perceive and react to various circumstances. Females may be more prone to feel pressure to fit in with gender roles and expectations, which may have a special effect on their aggression and locus of control. The outcomes are in line with the research by Shambharkar, K., & Agashe, C. D. (2016).

The sixth objective states to examine the relationship between Aggression and Locus of Control. Table 8 shows there exists only a significant relationship between locus of control and anger. Other dimensions of aggression and locus of control does not have a significant relationship. Österman, K., Bjòrkqvist, K., Lagerspetz, K. M. J., Charpentier, S., Caprara, G. V., & Pastorelli, C. (1999); Malipatil, R.P. and Patil, S.S. (2017), conducted research that yields similar results. Individuals with an external locus of control are more likely to experience anger and frustration because people with an external locus of control tend to blame outside factors for their problems and feel helpless to change their situation, as a result, they may become angry and resentful towards the perceived source of their problems. Another study by Annie Deming, over Relation of Locus of Control, Anger, and Impulsivity to Boys' Aggressive Behaviour indicated that anger and impulsivity were positively associated with aggression. This denotes higher the anger higher the score on the locus of control scale, i.e. external locus of control.

CONCLUSIONS

The present study investigated Overall Aggression and Locus of Control among combat sports persons, non-combat sports persons, and non-sports persons. The sample consisted of 240 participants in the age range

of 16-30 years old. Both descriptive and inferential statistics were examined in the analysis of the data from the participants. Findings indicate male Combat sports persons have significantly higher overall non-combat sports persons and non-sports persons. On the other hand, females show no such difference in aggression belonging to either of the three categories. There is also a significant difference between non-sports persons to sports persons over the locus of control. Non-sports persons, either male or female, acquire an external locus of control whereas sports persons (combat or non-combat, both males and females) have shown an Internal locus of control. Gender has no such relationship with the locus of control. Anger was also found to have significantly correlated with locus of control. Various reasons were discussed for these results along with support from past literature. The findings of the present study might assist in identifying suitable interventions or preventive measures. Overall, these suggestions may help strengthen the study and provide more comprehensive insights into the relationship between aggression and locus of control over sportspersons and non-sportspersons.

AUTHOR CONTRIBUTIONS

All authors contributed to all stages of the project including the writing of this manuscript. All authors have read and agreed to the published version of the manuscript. Ekta Bhambri Marwaha conceived, and designed the study, collected the data, analysed and interpreted the data, wrote the paper. Dr Ashima conceived, and designed the study , collected the data , interpreted the data ,wrote the paper while data collection was done by Ms Khushi.

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No funding agencies were reported by the authors.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

ETHICAL APPROVAL

All the participants were informed about the study and required consent was taken from the participants The participants in the study was volunteer, they could quit the study at any point they wanted. The primary and the only reason to collect the data is research that would in turn help students , academia and society as a whole in this section.

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