Revista de Psicología del Deporte/Journal of Sport Psychology Vol. 30. n.º2. 2021. pp. 174–186
Universidad de Almería / Universitat Autónoma de Barcelona. ISSN 1132–239X ISSNe 1988–5636

Keeping a Keen Eye on Unsanctioned Aggression in Contact Sports in China: Do Personal, Aggressive and Moral Factors Count in it?

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Abstract

This research reviews the factors related to the socio-cognitive self-regulatory processes influential on the unsanctioned aggression which may have received only limited attention in sports psychology; however, the present study has been designed with a view to rectify this gap. The primary purpose of the present study is to evaluate the unsanctioned aggression prevalent in contact sports. For this purpose the self-enhancement values, resistive self-regulatory efficacy and the self-transcendence values are considered as personal factors where moral disengagement and aggressive provocative tendency have been considered as well. The study adopts a quantitative design and online questionnaires have been used to generate a sample from 334 respondents. The data has been collected from people involved in different contact sports in China. Structural equation modelling is used for the evaluation of the variable relationships. The influence of the personal self-transcendence is found to lead to an increase in unsanctioned aggression in the contact sports players where the moral disengagement and aggressive provocative tendency effectively mediated the association. The results show that the self-transcendence, moral disengagement and aggressive provocative tendency govern the unsanctioned aggression of the contact sports players of China. The study produces a number of key practical, theoretical and policy-oriented implications. The present carries a number of design limitations that may be overcome in the work of future researchers. The findings of the study can be used by coaches, athletes, sports psychologists and decision-makers for the purpose of sports coaching as well as to lower the level of aggressiveness in contact sport players. By and large, the key limitation of the study is that it only considers the contact sports players in the context of China.

Keywords: Contact sports, unsanctioned aggressiveness, athlete's personal values.

Introduction

Aggression is a type of human behavior directed towards other individuals that causes harm to the opponent. Along with this, the perpetrator believes that the act will harm the prospect, and prospect is ready to avoid this act (Anderson & Bushman, 2002).

Human aggression means different things to an individual in different social, educational and sport contexts as it is stimulated by different objectives mechanism. Apart from this, it is also related to a number of personal and demographic values and variables (Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001). Nevertheless, factors of socio-cognitive self-regulatory mechanism regulating the unsanctioned aggression have received limited consideration in sports literature.

This research is therefore designed to develop a comprehensive arbitrating model which unifies the personal values of a human, aggression and moral factors in socio-intellectual self-regulatory mechanism, and essential unsanctioned aggression in contact sports.

Unsanctioned aggression

Human aggression is as "any behavior directed toward another individual that is carried out with the proximate (immediate) intent to cause harm. In addition, the perpetrator must believe that the behavior will harm the target, and that the target is motivated to avoid the behavior" (Anderson & Bushman, 2002). As per this definition, the intention of the offender is to injure the prospect and the objective of the prospect is to dodge such harmful action or not to get injured. Both are essential parts in contemplation of the act as aggression in social setting.

Contact sports in China

China is one of the unique countries in the world to have an article in its national constitution about sports. It states that "The State takes measures to develop the physical and mental health of Turkish citizens of all ages and encourages the spread of sports among the masses. The State protects successful athletes." Growing popularity sports show the interest and passion of its citizens towards recreational physical activities. The government also encourages citizens to engage in sports activities and therefore, it has become an essential part of their life. According to World Atlas, the most popular sports in the world are football and cricket with a 4,000 million and 2,500 million fan following respectively (as shown in Graph 1.1). Among them, almost all are widely played in China with soccer having its own federation named as soccer federation built in 1992.

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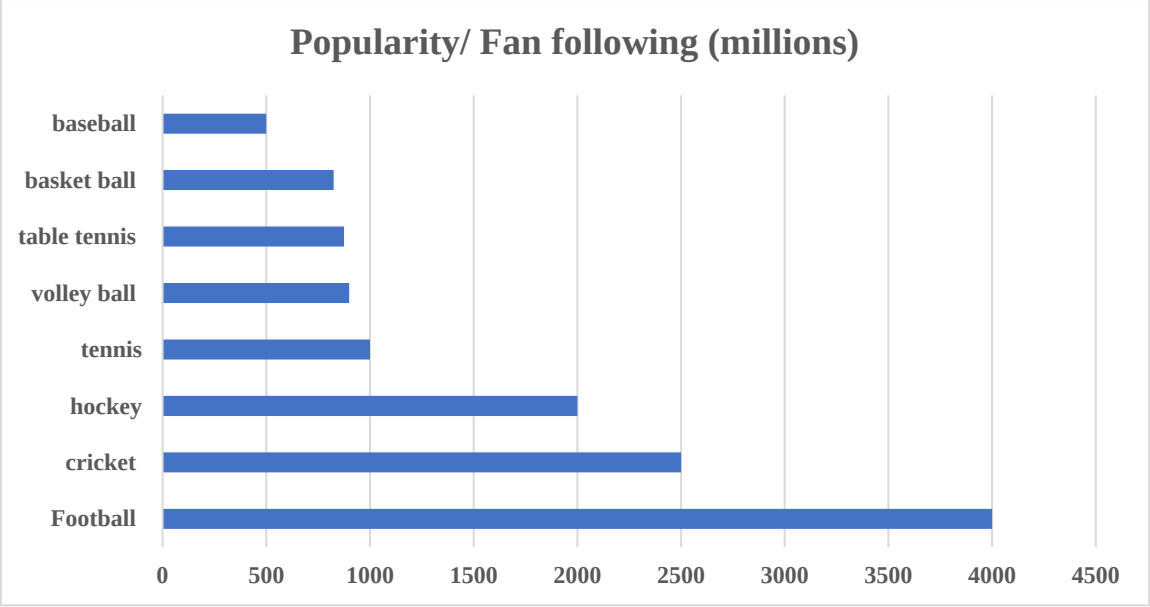

Figure 1.1: Worldwide popularity of different sports

Contact sports mainly involves sports like boxing, rugby or judo etc. These incite aggressiveness among the players. They may result in plentiful injury to the athlete but it is important to note that these are not necessarily considered to be a result of aggressiveness. Only the rules of that specific play determine precisely what qualifies as aggression. Aggression usually takes place when the rules of the game are broken or any verbal misconduct occurs between the players of both teams. It can be in the form of physical or verbal confrontation only or both. Examples include the use of rabbit punch during boxing or officials abused during a match of rugby etc. Such actions are considered as "illegal" or "unsanctioned" aggression and the players are given a penalty by the referee for such acts (Campo, Mellalieu, Ferrand, Martinent, & Rosnet, 2012). Other types of aggression include hostile aggression and instrumental aggression. Hostile aggression is the one in which one uses verbal or non-verbal ways to cause harm to someone. It is manifested the violent attitudes associated with anger and rage that are used to dominate or bring harm to an opponent. This is common among teenagers or the young population in sports that are impulsive in nature and are unable to control their emotions during play. Especially so, when all they want is to win the game and the ensuing frustration affects their behavior during the game. This pressure comes out in the form of verbal or physical abuse to the opponent player (Ahmadi, Besharat, Azizi, & Larijani, 2011). The second type of aggression or instrumental aggression is quite the opposite of hostile aggression as it is controlled and well-planned and is done in order to get advantage from the competitor. This aggression is most commonly seen among mature players where there is more competition and particularly among those players who believe in team sport (Coulomb-Cabagno & Rascle, 2006). This type of hostile aggression is referred to as "hot" impulsive behavior and instrumental aggression is referred to as 'cold' pre-planned behavior by psychologists (Bushman & Anderson, 2001).

Table 1.

Aggression in sports

Type of game	Mean Aggression
Contact	89.3250
Non-Contact	83.4750

Source: Trivedi and Pinto (2015)

This may also be due to the peer and social pressure on the young team players that makes them show this impetuous attitude during the game. Unsanctioned aggression can therefore be defined as "any acts falling outside the rules of the game and possibly harmful to another individual" (Y Albouza, Wach, & Chazaud, 2020). In competitive sports, unsanctioned aggression due to the penalties given by referees and verbal or non-verbal injury are highly delicate problems and can potentially affect personal life also (Copeland, Keeler, Angold, & Costello, 2007).

Aggressiveness

In competitive sports, aggressiveness can be defined as the "disposition to become aggressive" or "a willingness or attitude of acceptance toward aggression both physically and verbally, to gain a competitive advantage" (J. Maxwell & Moores, 2007). Many studies have been conducted to determine the reason behind this unsanctioned behavior of the athletes during the game.

Resistive Self-regulatory Efficacy and Moral Disengagement

Research-based studies believe that unsanctioned aggression is mainly due to resistive Self-regulatory Efficacy and Moral Disengagement. Bandura's theory considers the self-regularity measures' involvement in the personal behavior judgment and its reactions according to

the moral and social standards (Y Albouza, d'Arripe-Longueville, & Corrion, 2017). People show their moral conduct based on their personal experiences and exposures from the society as these things place positive and negative values in the mindset of those individuals. Moral disengagement is a self-regulation process that reconstructs the mindset of an individual in such a way that it makes them behave negatively and engage in acts of transgression.

Literature Review

Bandura's Social learning theory

Bandura's model on self-efficacy explains how people's beliefs affect the decisions they make in life. This includes studying the preferences and decision-making skills of a person that may impact their life and life choices. The in-depth concept of this model is human performance, motivation, accomplishments and emotional satisfaction. (Bandura, 2010). Bandura's four-step learning process is shown in Table 2.1. Self-efficacy and self-regulation are an integral part of the social learning process.

Table 2.1.

Bandura's four step learning process

Attention	**It states that learning is done via giving attention and observing completely in order to understand it.**
Retention	It means remembering the things that you observed in the previous stage by using different techniques such as symbols, codes etc.
Reproduction	Reproduction means reproducing the act you paid attention to and then applying this learning. Skill enhancement and improvement can be achieved through further practice and observation.
Motivation	To completely imitate the model that was observed one need to have constant motivation in order to do so. Punishment and reinforcement play a vital role in the motivation stage.

Self-transcendence values and unsanctioned aggression

Self-transcendence is a term used to define a personality trait in which a person expands his or her own boundaries, perceiving themselves as a part of the universe. It is a trait in which a person is able to see beyond himself. One study shows that self-transcendence is positively correlated with resistive self-regularity behavior and negatively with moral disengagement but it has no effect on unsanctioned aggression (Y Albouza et al., 2020).

Self-transcendence and self-enhancement have direct effects on the players and on the unsanctioned aggression. The several studies show that self-transcendence values are negatively and indirectly linked with unsanctioned aggression through mediators like moral disengagement and aggressive proactive tendency. This suggests that self-transcendence values improve memory association and self-regulation in players and thus it forms the basis for unsanctioned behavior in young or new athletes. This is arguably why they show more hostile aggression and are unable to control it. Self-transcendence governs the positive moral values in a competition or a sport as it makes players think about the welfare and well-being of other players and makes them more tolerable in a competition. According to Bandura's model, people's internal self-efficacy determines their behavior towards other people. Thus, this study proposes the following hypothesis.

H1: Self-transcendence is negatively related with unsanctioned aggression.

Resistive self-regulatory efficacy and unsanctioned aggression

Resistive self-regulatory efficacy refers to an individual's ability to control themselves in high pressure conditions and face the rage and control their tendency to commit an act of transgression. Transgressive behavior includes cheating or verbal and physical abuse or aggression. This can be directly or indirectly due to moral disengagement behavior (Karine Corrion, Gernigon, Debois, & D'ARRIPE-LONGUEVILLE, 2013). In one study, it was found that moral disengagement and resistive self-efficacy play the role of mediators in value aggressiveness and unsanctioned aggression (Y Albouza et al., 2017). According to Bandura's model on social cognition, self-regulation is a process that controls a person's aggressive behavior, therefore resistive self-regularity efficacy can negatively impact the unsanctioned aggression of the team players if moral engagement is not involved. Otherwise, moral disengagement mediates the behavior of athletes and affects their personal choices. Therefore, the study proposes the following hypothesis:

H2: Athletes' resistive self-efficacy is negatively related with unsanctioned aggression.

Self-enhancement values and unsanctioned aggression

Self-enhancement values include the feeling of achievement, self-indulgence, stimulation and self-direction. Personal values highly effect the choice of decision-making in sports as it affects their commitment and performance throughout a competition. Different studies in sports and social context psychology show that personal values affect the attitude of a person towards unsanctioned aggression or transgressiveness. Contrarily, some self-enhancement values also have a positive effect on attitude vis-a-vis unsanctioned aggression acting as a

mediator e.g. power (Seddig & Davidov, 2018) . A cross-sectional study by Danioni and Barni's also suggests that self enhancement values can impact positively on the unsanctioned behavior shown towards the rival team players (Barni, Danioni, & Benevene, 2019). These authors also study the peer pressure or the pressure of the family on the players underlying their aggression on behavioral relationship. Another research (Paciello et al., 2017)., demonstrates that the personal values of self-transcendence are negatively related and self-enhancement values are positively related with unsanctioned aggression and inhumane behavior. This study was conducted in 83 adults with 30 volunteers having a disruptive disorder of behavior, for instance, rage issues and short temperament, destructiveness, and theft. According to Bandura's model on social learning, it is shown that a person's moral standards are the choices adapted from their core or main values in a society, which in turn has a positive or negative effect on their altered moral and aggressive behaviors. Thus, the author can deduce the following hypothesis in this situation:

H3: Self-enhancement values have a positive relation with unsanctioned aggression.

Mediating role of moral disengagement

Moral disengagement is a process of self-regulation in which a person cognitively reconstructs their brutal behavior with other humans and the negative effect of their actions that causes harm to others. (Caprara, Regalia, & Bandura, 2002) There is a direct relationship between moral disengagement and aggression or inhumane behavior according to some cross-sectional studies and longitudinal studies (Bandura et al., 2001). Studies show that there is a direct and longitudinal relationship between the moral disengagement and the inhumane behavior in young people over four time periods. This demonstrates how the hostile and moral disengagement behaviors affect other personal behaviors involving self-regulation, self enhancement and self-transcendence values. In relation to sports, the emergence of violent or transgressive behavior can be the result of an ironic and dynamic rules of play like loyalty, cooperation and fair play etc (Weiss, Smith, & Stuntz, 2008). According to another study by Long, Pantaléon, Bruant and d'Arripe-Longueville (Long, Pantaléon, Bruant, & d'Arripe-Longueville, 2006), a number of other factors like social and peer pressure also effect the violent behavior of athletes especially in a competition. According to the game reasoning theory, the sports context is different from everyday routine and people behave differently when they are in a competition as compared to when they are facing some other situation (Shields & Bredemeier, 2007). Another study by Bredemeier and Shields ratesalso demons that the moral behavior of athletes was far less than the non-athletes (Bredemeier, Shields, & Shields, 1986). The self-transcendence values show a positive correlation with the resistive efficacy and negative association with the moral disengagement. While moral disengagement is positively related with aggressiveness according to Bandura's model, moral self-regulation and pro-social behaviors act as mediators in the negative effect of self-regulatory efficacy on transgressiveness and this leads to moral disengagement. Thus, the author can derive the following hypothesis.

H4: Moral disengagement mediates positively to the self-enhancement values effect on the unsanctioned aggression and it mediates negatively in self-transcendence values and resistive self-regularity efficacy on unsanctioned aggression

Mediating role of aggressive proactive tendency

Aggressive proactive tendency is a form of instrumental or cold-blooded aggression in which a person reacts against a target or opponent without any direct provocation. Both, proactive and reactive aggression are involved in the sports-related context. Personal and social values substantially impact the aggressive proactive and reactive tendency of a person and leads to aggressive behavior (Jara, Casas, & Ortega-Ruiz, 2017). In a study done with teenagers and young boys, findings reveal that reactive aggression is linked to the history of physical and verbal abuse and also adjustment problems with the family and inadequate attention in encoding, while the proactive tendency shows the positive outcome of aggression in the processing pattern (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). Reactive and proactive aggression are also affected by the emotional and cognitive behavior pattern; according to Siyez and Baran (2017), the empathy level of boys with proactive aggression was also quite less. A pilot study done by Paciello et al. (2017) on two groups, one with 85 adults and the second group with 30 adults having disruptive behavior disorder, demonstrate that people with behavior disorder are more inclined towards moral disengagement in order to legitimize their inhumane or brutal behavior. The regression models in this study also show that self-enhancement values and moral disengagement are also responsible for their proactive aggression, but the self-transcendence values could prevent these immoral behaviors and thus decrease the unsanctioned aggression. Bandura's model on social cognition also suggests that the personal choice, moral values, and cognitive effects impact the decision-making tendency and thus provoke a person to show their aggressive behavior. Based on this, this study proposes the following hypothesis from this review.

H5: Aggressive proactive tendency mediates positively to the self enhancement values effect on the unsanctioned aggression and it mediates negatively in self-transcendence values and resistive self-regularity efficacy on unsanctioned aggression

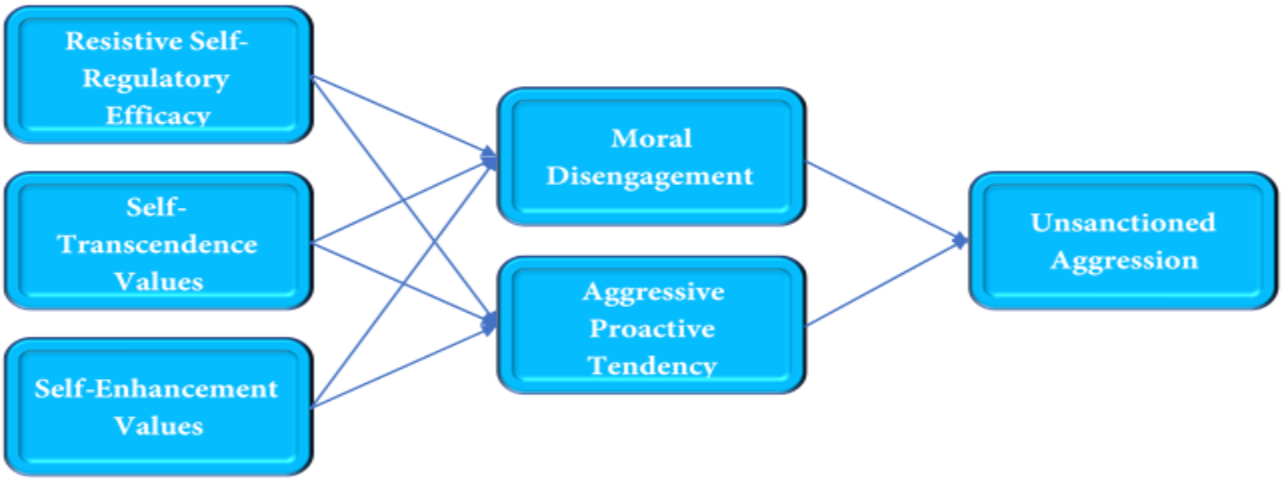

Figure 1: Conceptual Model

Methodology

Research Philosophy, Approach and Methods:

A research can use any one of the major types of research philosophies such as positivism and interpretivism. The difference lies in the fact that in interpretivism, there is freedom to interpret the results as they like while in positivism there is a restriction on the manner of interpreting data due to the statistical nature of data. The current study appoints a positivist philosophy. In terms of research approach, there are two kinds of approaches i.e., inductive approach and deductive approach. The inductive approach is based on exploration of a new phenomenon while deductive on exploration of past theories on hypotheses formulated by the researcher. In the current study, the researcher has based the study on hypothetical analysis, thus, a deductive approach is used. As for research methods, there are two kinds of methods i.e., quantitative, and qualitative. The current study is based on statistical data; thus, the researcher adopts a quantitative methodology.

Research Nature and Time Horizon

There are three kinds of research in terms of nature i.e., exploratory, explanatory, and descriptive research. The current study uses an exploratory research methodology as primary data collection is collected form the respondents which is then used for hypothetical testing. As for time horizon, there are two-time horizons generally used, longitudinal and cross-sectional time. The current study uses a cross-sectional time frame as the time is restricted and the researcher has only collected data from the respondents at one point in time from.

Sampling and Population

The population is a group of people that represents the characteristics of a sample. For this study, the researcher chose adults (i.e., aged 21 years and above) living in China. The adults chosen are the ones that have athletic experience. The reason for this population selection is that the objectives of this research require the collection of data from Turkish athletes. The researcher uses a mixture of convenience and snowball sampling techniques in this quantitative research. In convenience sampling, the researchers collect data from easily reachable respondents from the selected sample (Nechval & Nechval, 2016) and in snowball sampling technique, referrals from the initial respondents are used to increase the sample size to the maximum possibility (Ghaljaie, Naderifar, & Goli, 2017).

Data Collection Procedure

The researcher uses a close ended structured survey for collecting data in this study. The researcher uses the initial draft of the questionnaire to conduct pilot tests. Pilot testing has been conducted with 10 respondents, including 5 general respondents, 2 academic experts, 1 language expert and 2 athletic field experts. The questionnaire has been distributed to the targeted sample only after accounting for the adjustments suggested by the pilot test results. The questionnaires are distributed electronically in the wake the Covid-19 Standard Operating Protocols. The researcher is able to collect 352 responses on the end of the data collection period which, after adjusting for wrong responses and incomplete responses, 334 responses are included in the final research analysis step.

Measures

All of the variables, except unsanctioned aggression, have been evaluated on the basis of five-point Likert scales, ranging from strongly disagree to strongly agree. The measures for the present study are adopted from existing studies and have been adapted according to the requirements of the present context.

Self-enhancement values

Self-enhancement is evaluated on the basis of the Schwartz (2003) scale considering the variable as a subscale of personal values of athletes. There are a total of four items.

A sample item is "Getting ahead in life is important to him. The internal consistency of the scale in previous studies has been reported to be a = 0.75.

Self- transcendence values

Self-transcendence is evaluated on the basis of the Schwartz (2003) scale considering the variable as a subscale of personal values of athletes. There are a total of five items. A sample item is "It is important to him to be loyal to his friends". The internal consistency of the scale in previous studies has been reported to be a = 0.78.

Resistive self-regulatory

Resistive self-regulatory is evaluated on the basis of the six-item scale developed by Karine Corrion et al. (2013) for sports-related contexts. A sample item is "How well do you resist the pressure from someone who pushes you to attack an opponent physically?" The internal consistency of the scale in previous studies has been reported to be a = 0.91.

Moral disengagement

Moral disengagement has been assessed on the basis of the three-item scale by K Corrion, Scoffier, Gernigon, Cury, and d'Arripe-Longueville (2010). A sample item is "It's not serious if I behave badly [cheating or aggression] because all manners are good to achieve victory". The internal consistency of the scale in previous studies has been reported to be a = 0.90.

Aggressiveness

Aggressiveness is evaluated on the basis of six items based on the study byYoussef Albouza and Chazaud (2019). A sample item is "I feel bitter towards my opponent if I lose". The internal consistency of the scale in previous studies has been reported to be a = 0.75.

Unsanctioned aggression

Unsanctioned aggression has been evaluated on the basis of the two-item scale by J. P. Maxwell and Visek (2009). A sample item is "Have you ever used excessive force, illegal within the laws of your sport [e.g., rugby union, boxing, judo, and football or handball] against your opponent just for the sake of inflicting pain or injury?" The sports individuals are required to provide a "yes/no" response to the questions by this scale.

Ethical considerations

Ethical values are the basis to determine the validity of the research outcomes. Therefore, several steps will be taken to keep the potential ethical issues under check. First and foremost, the anonymity of the respondents will be assured. Moreover, data collected from the respondent will be kept authentic with their consent and point of view. Additionally, all of the information presented in the study is original and all sources have been cited properly.

Results

Demographics:

The demographical information of the respondents is used for research generalization and also indicates the main characteristics of the population. There is a low disparity found in the gender distribution of the sample i.e., 52.1 per cent of the respondents are male and 47.9 per cent are female. The sample is mostly highly educated i.e., 12.6 per cent respondents have completed graduation, 43.4 per cent have completed post-graduation, 32.3 per cent have done masters and the remaining 11.77 per cent listed their education credentials as others. For the evaluation of the age distribution, the researcher has divided the respondents in four groups. 26.3 per cent respondents are within 21-30 group, 29.9 per cent fall into the 31-40 group, 29 per cent are in the 41-50 group and 14.7 per cent of respondents are older than 50.

Descriptive Statistics

Descriptive statistics are generally used for providing descriptions about the basic features and characteristics of the research data in form of statistical summaries. The mean, normality and correctness of the data are evaluated through the descriptive analysis. Normality is assessed through the skewness test. The table below showcases that the skewness values of the variables fall within the prescribed range of -1+1 and thus, the data is proclaimed to be normal. The mean values of the variables are 3 or above, showing that the average responses of the participants lay in the agreement area. The minimum and maximum values of the variables are evaluated for evaluating the presence of the outliers. As the minimum and maximum values are according to the endpoints of the measurement scale (5-point Likert scale), thus it is stated that the data is correct and no outliers were found.

Table 2.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
SE	334	1.00	5.00	3.4586	1.11950	-.694	.133
SV	334	1.00	5.00	3.4305	1.14887	-.594	.133
EN	334	1.00	5.00	3.5277	1.14235	-.699	.133
PT	334	1.00	5.00	3.5354	1.09713	-.700	.133
MD	334	1.00	6.33	3.4261	1.11368	-.207	.133
UA	334	1.00	5.00	3.3922	1.15225	-.437	.133
Valid N (listwise)	334						

KMO and Bartlett Test

The KMO value is used to evaluate the adequacy of the data used for the analysis. The KMO measure evaluates the overall model to verify if the sample data was suitable or not, a value closer to 1 or greater than 0.8 indicates suitability of the data. The Bartlett test is conducted to evaluate if there is any redundancy in the data, as the sphericity value is significant and the null hypothesis for the test is rejected, it is stated that the sample is suitable for factor analysis.

Table 3.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.933**
Bartlett's Test of Sphericity	Approx. Chi-Square	8494.597
	Df	325
	Sig.	.000

Factor analysis

Table 4 presents the results of the factor analysis conducted through the rotated component matrix. The overall acceptable factor loading value is considered to be 0.6 (Rahi, 2017). Moreover, it can be clearly seen that the factors do not have any cross-loading issues, demonstrating data reliability.

Common Method Bias

The Harman's single factor test is performed in order to evaluate the common method bias in the responses. The test is a post hoc procedure that is performed after the data collection in order to evaluate whether one factor is responsible for the variance in the data (Tehseen, Ramayah, & Sajilan, 2017). The results in the table clearly show that the total variance extracted by the first factor is 46.53 per cent which is less than 50 per cent and therefore less than half of the total variance extracted. As none of the factors are responsible for the contribution of more than 50 per cent of variance, the issue of common method bias is not found to be present in the data.

Construct validity

The construct validity is evaluated through the convergent and discriminant validity of data. Both of these validities are required to be true in order to confirm the overall construct validity. The convergent validity is used to measure the similarity that exists in the research constructs in a study and this test can help ensure that the research variables that are theoretically related are related practically as well. The presence of convergent validity is evaluated on the basis of three indicators i.e. AVE, CR and MSV. According to previous recommendations, the value for composite reliability (CR) should be above 0.6 and AVE should be above 0.5 for all constructs (Ginty, 2013). As depicted in the Table 6, the CR ranges from 0.85 to 0.95 and AVE is also greater than 0.5 for all the constructs and the MSV values are less than the AVE values. Thus, the presence of convergent validity is confirmed. The discriminant validity is used to demonstrate that the unknown constructs are not similar to each other and the factors that measure discreet constructs are in fact discreet in actuality as well. The discriminant validity is confirmed through the evaluation of the self-correlation and cross-variable correlation values of the variables, if the self-correlation values are higher than the latter, then the presence of the discriminant is proven. Therefore, as both convergent and discriminant validity are demonstrably present, the construct validity holds to be true as well.

Table 4.

Rotated Component Matrix

	Component					
	1	2	3	4	5	6
SE1		.684				
SE2		.757				
SE3		.825				
SE4		.795				
SE5		.800				
SE6		.810				
SV1			.776			
SV2			.822			
SV3			.828			
SV4			.842			
SV5			.826			
EN1				.825		
EN2				.847		
EN3				.892		
EN4				.820		
PT1	.796					
PT2	.805					
PT3	.792					
PT4	.841					
PT5	.854					
PT6	.855					
MD1					.797	
MD2					.831	
MD3					.855	
UA1						.801
UA2						.826

Table 5.

Common Method Bias

Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.098	46.531	46.531	12.098	46.531	46.531
2	2.553	9.821	56.351			
3	2.526	9.716	66.068			
4	1.905	7.328	73.395			
5	1.371	5.272	78.668			

Table 6.
Convergent and Discriminant Validity

	CR	AVE	MSV	MD	SV	SE	EN	PT	UA
MD	0.888	0.725	0.468	0.851					
SV	0.955	0.811	0.375	0.316	0.900				
SE	0.937	0.713	0.375	0.528	0.612	0.844			
EN	0.942	0.803	0.347	0.385	0.589	0.522	0.896		
PT	0.941	0.727	0.336	0.427	0.580	0.551	0.423	0.852	
UA	0.857	0.749	0.468	0.684	0.360	0.483	0.423	0.449	0.866

Model Fitness

The model fitness is presented through the results of the confirmatory factor analysis. The results, as shown in Table 7 show that the CMIN, GFI, IFI, TLI, CFI and RMSEA are all according to the threshold values prescribed in the table and therefore the model is reckoned to be fit for further analysis.

Table 7.
Model Fit Indices

Fit Index	Recommended Score	Observed Score	Interpretation
CMIN/DF	≤ 3.0; 5.0	2.048	Excellent
GFI	≥ 0.80	0.881	Excellent
IFI	≥0.90	0.965	Excellent
TLI	≥ 0.90	0.960	Excellent
CFI	≥ 0.90	0.965	Excellent
RMSEA	≤ 0.08	0.056	Excellent

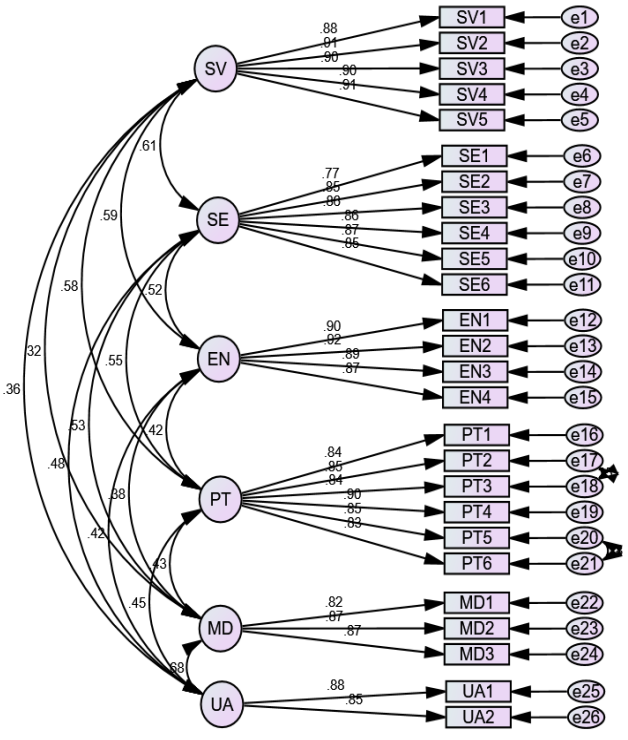

Figure 2: CFA

SEM

Structural equation modelling is used by the researcher as the motive of the analysis is to evaluate the multiple interrelated dependencies in a single procedure. SEM makes use of two kinds of variables i.e., endogenous and exogenous variables. This technique is one of the most widely used methods in quantitative research. The results of the SEM are presented in Table 8 below. The impact of self-transcendence values on the unsanctioned aggression is positive and significant. A unit increase in the SV produces an increase of 17 percent in UA. As the association is significant, the hypothesis is accepted. The impact of the resistive self-regulatory efficacy is positive; however, the impact insignificant in the case of unsanctioned aggression, therefore the hypothesis is rejected. The impact of the resistive self-enhancement values is positive; however, it is insignificant vis-a-vis unsanctioned aggression, therefore the hypothesis is rejected.

Table 8.
Structural Equation Modeling

	path		Estimate	S.E.	C.R.	P
PT	<---	SV	.238	.053	4.300	***
PT	<---	SE	.261	.054	4.749	***
MD	<---	SE	.361	.058	6.229	***
MD	<---	EN	.155	.056	2.729	.006
PT	<---	EN	.195	.052	3.602	***
MD	<---	SV	.063	.057	1.073	.283
UA	<---	SV	.170	.051	3.306	***
UA	<---	SE	.077	.055	1.430	.153
UA	<---	EN	.046	.050	.909	.364
UA	<---	PT	.174	.051	3.535	***
UA	<---	MD	.425	.048	9.081	***

The mediating effect of the moral disengagement and aggressive provocative tendency is illustrated below. It can be seen that both mediators pose significant impacts on the associations between the dependent and independent variables; as all three relations are significant, the hypotheses are accepted.

Discussion and Conclusion

Discussion

After critically analyzing the statistical outcomes of structural equation modeling and mediating effect of the tested variables i.e., independent, dependent and mediating, it becomes clear that a significant relationship has been seen among variables. There is a significant positive influence of resistance self-regulatory efficacy on aggressive proactive tendency and then on unsanctioned aggression. This argument has already been justified by Albouza and others in their European Review of Applied Psychology to examine the factors related to socio-cognitive self-regulatory mechanism constraining unsanctioned aggression in applied sports psychology. They conclude that self-enhancement values and self-transcendence only cause indirect positive and negative

impact on the unsanctioned aggression under the gender, age and sport type based strong mediators (Y Albouza et al., 2020). Also, in the same year, Christopher Ring with others evaluate the basic values to predict doping likelihood through measuring moral disengagement, basic values, and anticipated guilt among players. Their correlation-based statistical outcomes depicted that doping likelihood is found to be positively influenced by self-enhancement, but negatively influence on conservation values and self-transcendence values. However, their moral disengagement factor shows a negative impact on self-transcendence values and a positive impact on self-enhancement values (Ring, Kavussanu, & Gürpınar, 2020). Their overall outcomes depicted that value of athletes indirectly (conservation, self-transcendence) and directly (self-enhancement) associated with the use of banned performance promoting substance with an expression of cheating in sports. It means that two major hypotheses of this study have been justified i.e., there is a significant relationship between self-transcendence value and unsanctioned aggression, and there is a significant mediating role of aggressive proactive tendency between self-transcendence value and unsanctioned aggression. While other related hypothesis become nullified, there is a significant mediating role of moral aggression between resistance self-regulatory efficacy and unsanctioned aggression of contact sports players in China.

As far as the self-transcendence value-based outcomes are concerned, it becomes clear that this factor positively influences the aggressive proactive tendency and moral disagreement but was unable to influence the unsanctioned aggression factor under the influence of external controlling variables of this research study. In existing literature, most scholars also give related outcomes. Like Maya Benish-Weisman posit that during adolescence, the value enhances the level of caring for others. Furthermore, it promote social norms which is negatively associated with aggression and enhances self-focus, motivation and experiences related to aggressive (Benish-Weisman, 2019). While, McDonald, Benish-Weisman, O'Brien, and Ungvary (2015) predict that the behavior of aggressive group membership through self-transcendence, conservation values and open-to-change, and conclude that values of aggressive pro-social youth differ in essential ways as compared to aggressive youth (McDonald et al., 2015). While Adell Carrasco with others confirms the importance of personal values in the sports domain and state that instilling human values of self-transcendence transmitting moral and competence values is essential to promote task orientation among athletes (Adell Carrasco, Castillo Fernández, & Álvarez Solves, 2019). According to other scholars, self-transcendence, self-enhancement and self-improvement based goal priorities of player varied with the degrees of self-centeredness (Papaioannou & Krommidas, 2021). Therefore, after considering the Turkish contact sports' players and the previous scholars' point of view on the related variables, it becomes clear that there is a significant positive relationship existing between self-transcendence value and aggressive proactive tendency, and between self-transcendence value and moral disagreement.

Table 9.

Mediating Effect

	EN	SE	SV
MD	.000	.000	.000
PT	.000	.000	.000
UA	.100**	.199**	.068*

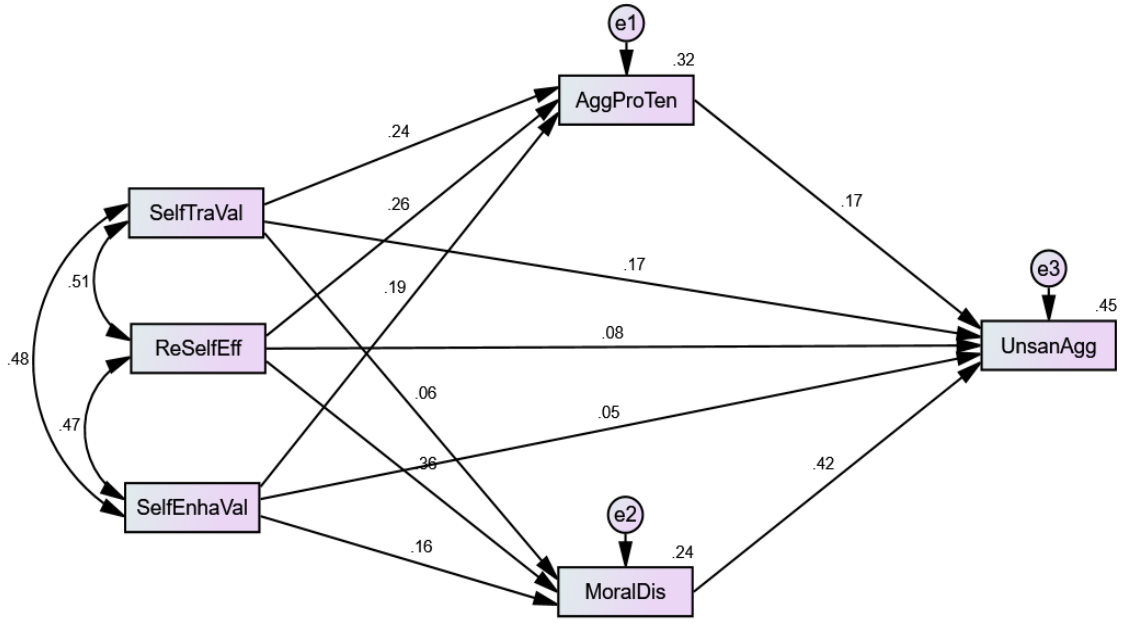

Figure 3: SEM

According to the SEM-based authentic outcomes, self-enhancement values cause a significant influence on moral disagreement and aggressive proactive tendency, but is unable to influence the dependent variable i.e., unsanctioned aggression. According to Mengchen Dong and others, feelings of moral superiority directly motivate the hypocritical behavior of people but was unable to cheat in private after using the randomizer. They also state that both moral identity and self-enhancement motives cause a hypocritical behavior by inspiring the moral appearance (Dong, van Prooijen, & van Lange, 2019). In the same year, Gilad Feldman conclude that self-enhancement versus self-transcendence is associated with individualizing foundation, while openness-to-change values versus conservation dimensions were associated with binding foundations (Feldman, 2021). In 2020, Kelsey Ann Anello concluded that the impact of self-affirmation activity on narcissistic aggression is negative (Anello, 2020). The above valid arguments justified that a strong relationship exists between self-enhancement values and moral disagreement, and between self-enhancement values and aggressive proactive tendency. Kai-Tak Poon along with others also state that objectification directly increases the level of aggression through thwarted perceived control. They conclude that perceived control plays a significant role in understanding the various forms of interpersonal maltreatment in diverse instrument settings (Poon, Chen, Teng, & Wong, 2020). Moreover, the above statistics depict that both the mediators i.e., aggressive proactive tendency and moral disagreement cause a significant positive influence on the unsanctioned aggression-based dependent variables. While on the other hand, both self-transcendence value and self-self-enhancement values are unable to significantly influence unsanctioned aggression.

Conclusion

Thus, it becomes clear the structural equation modeling-based statistics that resistance self-regulatory efficacy caused a significant positive impact on unsanctioned aggression among the contact sport players under the mediating role of aggressive proactive tendency. As other remaining independent variables i.e. self-transcendence value and self-enhancement values are unable to show their significant direct relationship with unsanctioned aggression,that means a percentage of self-regulatory efficacy is much higher among Turkish players who played contact sport. Ergo, their related hypothesis has been nullified that there is a significant relationship existed between self-transcendence value and unsanctioned aggression, and between self-enhancement values and unsanctioned aggression in Turkish athletes' perspective. These authentic constructive outcomes are derived by conducting an online survey-based quantitative primary research data where different relevant closed-ended questions have been asked from the respondents. Following this, different statistical tests are conducted i.e., KMO and Bartlett's Test, common method bias, convergent and discriminant validity, confirmatory factor analysis and structural equation modeling whose authentic outcomes depict that overall, both mediators i.e., aggressive proactive tendency and moral disagreement only significantly impacted on unsanctioned aggression independently. Overall, this is an authentic and insightful research study that will add value in this field of socio-cognitive self-regulatory mechanism in sports.

Future Implications

As far as its implications are concerned, it bears to note that this informative study contains a number of practical, theoretical and policy-making based effective implications. This study primarily focuses on Turkish contact sports and seeks to determine the factors causing their unsanctioned aggression. Therefore, its authentic outcomes regarding the resistive self-regulatory efficacy of players and other related information-based data can be utilized by coaches, athletes, sports psychologist and decision-makers for the refinement and development of their knowledge. Its reliable data can be helpful when considering the personal values of Turkish athletes with respect to the training procedure and leadership to enhance the socio-cognitive self-regulatory mechanisms focusing unsanctioned aggression. In short, this challenging research will be a game-changer in focusing the unsanctioned aggression among contact sports' players. In addition to this, this research also carries theoretical implications, for instance its reliable data can be utilized by analysts, scholars, and researchers in their future research. They can use this research outcome in their discussion, literature and background study information in order to enhance the validity of their researches. Moreover, future scholars can consider this research data in their new hypothesis and framework selection's purposes. Not only them, but this valid data can also be considered by stakeholders in the government and its sports-related authorities to uphold their responsibility towards these sports players. In short, this research carries substantial implications in the current scenario where very limited research has been done on the related topics.

Limitations and Future Researches

No doubt, this research is giving a new direction to upcoming researchers and sports analysts. Nevertheless, also has some limitations that may impact the authenticity and acceptability of its constructive outcomes on a large scale. Its first gap is contextual in nature as the study only considers the unsanctioned aggression among contact sports in China, rather than considering the other related states with the sports industry. Such a comparative analysis-based versatile outcome may enhance the acceptability factor of this research. The second limitation

is based on a lack of psychological understanding focused interview-based qualitative study in the research methodology and analysis portion. This weakness may adversely impact the authenticity of its reliable outcomes. Not only this, but there is also an alternate option to conduct a mixed method of research-based versatile and error-free outcomes in order to accurately gauge the influence of personal, moral, and aggressive factors on the athlete's life. In addition to this, the present findings of this research study could be extended to provide new relevant information for sports psychologists and coaches by majorly focusing on their unsanctioned aggression. Moreover, future scholars can consider the joint mediating role of affective variables i.e., aggressive provocative tendencies and negative affective self-regulatory efficacy. After considering its limitations, it becomes clear that there is an ample opportunity in front of future scholars

and analysts to critically utilize its limitations and weaknesses in their research studies and derive versatile, constructive and highly acceptable outcomes.

Acknowledgement

The study was supported by National Social Science Foundation project of China (Grant No. 1341324011).

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