AGGRESSION IN FOOTBALL: A COMPARATIVE STUDY

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INTRODUCTION

There is a rising concern that aggression is becoming an accepted and even encouraged part of sport (Sacks, Petscher, Stanley & Tenenbaum, 2003; Stephens, 2001). A growing body of literature has delved into aggressive conduct in sport and the rationale behind this unwarranted behaviour (Stephens & Kavanagh, 2003; Stephens, Bredemeier & Shields, 1997; Stephens, 2000, 2001, 2004). As stated by the Fédération Internationale de Football Association (FIFA), fouls are inevitable in football. There are no foul-free football matches, due to the physicality and emotion generated by the game (Martin, 2012). During an athletic contest, the potential for frustrating situations is unlimited. Combine that with aggressive behaviour that is rewarded by team-mates, coaches and parents, or adopted by role models on television or during live contests, and the potential for aggression in sport only rises (Keeler, 2007).

Psychologists define aggression as a behaviour that is intended to harm another individual who does not wish to be harmed (Baron & Richardson, 1994). Aggression comprises four principles: it is a form of behaviour; it involves intent; it involves harm or injury; and it is directed toward a living organism (Gill, Williams, & Reifsteck, 2007). Aggression take the form of either physical or verbal behaviour and is distinguished by its intentional delivery (Gill & Williams). Anderson and Bushman (2002) acknowledge that the personality of a player can play a significant role in determining whether they will be aggressive or not in certain situations. For example, Roy Keane, a former professional footballer, was noted for his aggressive and competitive style of play: *"Aggression is what I do. I go to war. You don't contest football matches in a reasonable state of mind"* (Keane & Doyle, 2014).

The Influence of Age on Aggression Levels

Coulomb and Pfister (1998) recognise age as an important component in determining aggression levels. As a player gets older, they become increasingly motivated by competition and victory, and come to consider aggressive behaviours as legitimate in competitive sports (Duda, Olson & Templin, 1991). An age-related increase in aggression can be credited to players' development of moral reasoning, which is negatively influenced by sport competition and experience (Bredemeier, Weiss, Shields & Cooper, 1987). Coulomb and Pfister (1998) suggest that the higher the level of competition, the greater the frequency of instrumental aggression, while the incidence of hostile aggression occurs less frequently (Bredemeier et al.). Abdoli, Rezaie and Sani (2009) have determined the effect of emotional intelligence (for example, self-control and social skills) on aggression levels of professional football players. The results indicated that a negative correlation exists between emotional intelligence and aggression. High levels of emotional intelligence were positively linked with low levels of aggressive behaviour. The authors suggested educating football players through training programs designed to improve emotional intelligence, hopefully leading to enhanced social and interpersonal relationships. Aktop, Özçelik, Kaplan and Seferğlu (2015) assessed assertiveness and aggression levels of amateur football players across various age groups. This study found that with age, destructive aggression levels tend to decrease. Based on their findings, it is suggested that while destructive and passive aggression levels decrease with age, assertiveness levels positively increase with age.

Aggression in Relation to Playing Positions

Gümüşdağ, Yıldıran, Yamaner and Kartal (2011) have assessed the frequency, timing, zone and player category of fouls and of aggressive behaviour in professional football (Gümüşdağ et al.). They found that the majority of fouls were committed by players operating in their natural pitch zones (forwards in the attack zone and defenders in the defence zone). It was suggested that the players learn how to channel their aggressive behaviours in order to balance the cost (punishment) and profit (ball advantage, score) in the right place and at the most appropriate time. Mahrokh and Ayoub (2012) also found that aggressive behaviour occurred more often in the attacking and defensive zones (Mahrokh & Ayoub). They considered that this was associated with critical situations (such as conceding a goal) that could produce a catastrophic result, and was therefore associated with emotional responses such as expressions of anger and aggression (Vallance & Dunn, 2006).

Coaching Efficacy Beliefs in Relation to Aggression

Chow, Murray and Feltz (2009) examined personal and socioenvironmental factors relating to players' likelihood to aggress in youth football (Chow et al.). They found that coaching efficacy beliefs were a positive predictor of their players' likelihood to aggress. This study produced the novel finding that the team norm for aggression was the most likely predictor in determining levels of aggression.

The purpose of the present study is to examine the self-likelihood to aggress of amateur football players and coaches, and to identify the influence of coaching efficacy beliefs on aggression levels.

METHODS

Participants

The participants were male amateur football players (n = 134) belonging to 14 different amateur football teams, together with their coaches (n = 7). Five teams were drawn from the A division (n = 51), four teams were from the B division (n = 26) and five were from the C division (n = 57). Participants' ages ranged from 15 to 65. Total years of football experience ranged from 0.5 years to 55 years, and participants were primarily New Zealand European (n = 105). The numbers of players per team ranged from 3 to14. Coaches ranged in age from 33 to 57. The majority of coaches had coached for 7-15 years. All of the coaches had played club-level football and had 3 to 50 years of playing experience. Coaches were primarily New Zealand European (n = 6).

The sample size of participants was chosen based on the number of teams playing in the leagues active in the geographical location where the study was carried out. Assuming that each of the 14 teams had 15 players and a coach, this gave a predicted sample size of 224. However, each team had different squad sizes, resulting in a sample size of 134 players and seven coaches (n = 141).

Procedure

Coaches were initially contacted via phone or email with a request that their teams participate in the study. At a training session, the coach would introduce the researcher to the players, who were then given a brief description of the nature and purpose of the study (with the exception of C division teams, where data was collected on match days before games, as these teams did not hold training sessions). Those who wished to participate in the study were given a hard copy of the anonymous survey and asked to complete it as honestly as possible. Participants completed the survey individually, but in the presence of their team-mates (most commonly in the club changing room). They were asked to complete the survey in silence, without discussion. This process took 15-30 minutes. The

data was collected between 2 April and 31 August 2016.

Measures

The questionnaire was broken down into three sections. All participants completed the demographic questionnaire. The players completed the 'Judgments About Moral Behaviour in Youth Sport' questionnaire, while coaches completed the 'Coaching Efficacy Scale.'

Demographic Questionnaires. Demographic data was gathered from both players and coaches. This included information on age, ethnic affiliation, team name, coach's name, division, years under this coach, total years' experience, primary playing position, highest level played, and total number of years coaching. Coaches were also asked to rate the overall ability of their team on an 11-point Likert Scale ranging from 0 (very poor) to 10 (excellent). This question was aimed at investigating coaches' belief in the overall ability of their team. This procedure was developed by Park (1992) and has been used in previous studies examining coaching efficacy (Feltz, Chase, Moritz & Sullivan, 1999; Myers et al., 2006).

Judgments About Moral Behaviour. The Judgments About Moral Behaviour in Youth Sport Questionnaire (JAMBYSQ; Stephens, 2004) was developed to measure players' self-described judgements about lying to an official, cheating by breaking a rule, or hurting an opponent in a game situation. The JAMBYSQ consists of three sections: (a) demographics, (b) individual participants responses to aggression scenario, and (c) perceived team norms regarding aggression. The JAMBYSQ aggression scenario depicts a hypothetical protagonist faced with a decision where his action could injure an opponent:

> *Bill has been caught out of position on defense and now John is dribbling quickly toward an open goal. Although Bill cannot get his foot on the ball, he could trip John thus preventing the shot. He knows that tripping is dangerous, and John will probably get hurt. Bill has to decide whether to trip John.*

After reading the scenario, players were asked to imagine themselves in the situation and, being as honest as possible, answer a series of questions designed to assess their moral thinking and behaviour. The first item assessed the team norm for aggression, an aspect of the team's 'moral atmosphere.' Specifically, athletes were asked to report how many players on their team would trip 'John' if they were in this situation. Responses were made on a 5-point Likert scale ranging from 1 (none of the players) to 5 (everyone on the team). The next section assessed a player's stage of moral development by determining their primary motive for aggression. Players were presented with six statements, each adding a new level of complexity to the basic scenario, and were instructed to select the statement that was the most "tempting."

Three of these statements represented a preconventional stage of moral development (e.g., if the other team had gotten away with the same thing earlier in the game, then it seems only fair), and three statements represented a conventional stage of moral development (e.g., if you felt that your team trusted you to do all that you could to help the team). Based on their responses, players were categorised as adopting a preconventional (0) or conventional (1) moral reason for aggressive behaviour. The last question was designed to assess players' self-described likelihood to aggress. Specifically, athletes were asked to report how likely they would be to trip the opponent in the situation that they found most tempting. Responses were made on a 5-point Likert scale ranging from 1 (not at all likely) to 5 (very likely).

Coaching Efficacy. The Coaching Efficacy Scale (CES; Stephens, 2004) is a 24-item self-report measure used to assess coaches' confidence in their ability to influence the learning and performance of their athletes. Items are scored on a 10-point Likert Scale ranging from 0 (not at all confident) to 9 (extremely confident). The CES comprises four subscales, including character-building (e.g., instil a good moral character), game strategy (e.g., understand competitive strategies), motivation (e.g., motivate your athletes), and technique (e.g., teach the skills of the sport).

Data Analysis

Data was processed using simple descriptive analysis, and SPSS 19.0 was used to analyse the results. Descriptive analysis of variables was followed by reliability analysis, correlation analysis and linear regression analysis.

RESULTS

Player Demographic Questionnaire Results

Of the 134 participants, the youngest was 15 years old and the oldest was 65; the mean age was 30 (M = 30.5, SD = 11.85). The most common ethnic affiliation was New Zealand European (n = 105), followed by Other (n = 20), Maori (n = 7) and Pacific Island (n = 2). Of the three divisions represented, the C division was the most common (n = 57), followed by the A division (n = 57) and the B division (n = 26).

For the players, years on their respective teams ranged from 0.5 years to 20 years; the mean team representation was three years (M = 3.2, SD = 3.81). Years under the same coach ranged from 0.5 years to 11 years, and the mean figure was 1.7 years (M = 1.7, SD = 1.86). Total years' experience as players ranged from 0 years to 55 years, with the mean being 16 (M =16.3, SD = 11.74). Primary playing positions were broken down into goalkeeper (n = 10), defender (n = 41), midfield (n = 48), forward (n = 30) and utility (n = 5).

Coach Demographic Questionnaire Results

Of the seven coaches, the most common ethnic affiliation was New Zealand European (n = 5), followed by Maori (n = 1) and Other (n = 1). The youngest age represented was 33 and the oldest was 57; the mean age was 48 (M = 48.5, SD = 11.85). The number of years played ranged from three years to 50 years. The highest level played by all of the coaches was club level (n = 7).

The total number of years in a coaching career ranged from four to 15 years, and the competition level of the current team represented included C division (n = 4), B division (n = 2) and A division (n = 1). Years in their present coaching position ranged from one to ten years. The estimated percentage of wins for the previous season ranged from 0% to 90%. Their rating of the overall ability (0 = very poor, 10 = excellent) of the athletes in their team ranged from 5/10 to 7/10.

Player Team Norm for Aggression Results

When asked how many of the players in their team would trip 'John,' the mean answer was "a few players" (n = 76). The players were asked to answer a series of statements designed to assess which situation would have been most appealing; the two most common responses for each statement are presented in Table 1.

	Aggression statement	Two most common participant responses (n)				
		1 Not at all tempted	2 Not very tempted	3 A little bit tempted	4 Somewhat tempted	5 Very tempted
a)	If the other team had gotten away with the same thing earlier in the game, so it seems only fair.	40		36		
b)	If you had seen your coach praise one of your team-mates for similar behaviour in a previous game, and you want him or his to praise you.	73		24		
c)	If your team needed to have their spirits lifted.	62	28			
d)	If there were a tie score and this action would be necessary to keep the other team from winning the game.	44		27		
e)	If you felt that your team trusted you to do all that you could to help the team.	56	26			
f)	the officials hadn't been calling a very tight game, so it would be easy to take advantage of the situation.	54			23	

Table 1. Self-reported player responses for aggression statements (two most common responses).

Player Self-likelihood to Aggress

When asked which statement (a, b, c, d, e, f) the participants found most tempting, the two most common responses were statement d (n = 44) and statement a (n = 40). When asked to imagine themselves in the situation, and whether or not they would trip the opponent, the two most common responses were "not very tempted" (n = 42) and "a little bit tempted" (n = 37).

Coach Team Norm for Aggression Results

The coaches were also asked to list how many of the players on their team would trip 'John.' The mean answer was "a few players" (n = 5). When asked to respond to a similar series of statements, the two most common responses for each statement are recorded in Table 2.

	Aggression statement	Two most common participant responses (n)				
		1 Not at all tempted	2 Not very tempted	3 A little bit tempted	4 Somewhat tempted	5 Very tempted
a)	If the other team had gotten away with the same thing earlier in the game, so it seems only fair.			3	2	
b)	If you had seen your coach praise one of your team-mates for similar behaviour in a previous game, and you want him or his to praise you.	2	3			
c)	If your team needed to have their spirits lifted.	3	3			
d)	If there were a tie score and this action would be necessary to keep the other team from winning the game.	2		3		
e)	If you felt that your team trusted you to do all that you could to help the team.	3	2			
f)	the officials hadn't been calling a very tight game, so it would be easy to take advantage of the situation.		4	2		

Table 2. Self-reported coach responses for aggression statements (two most common responses).

Coach Self-likelihood to Aggress

When asked which situation (a, b, c, d, e, f) the coaches found most tempting, the two most common responses were statement f (n = 4) and statement a (n = 3). When asked to imagine themselves in the situation, the two most common responses were "not very tempted" (n = 4) and "not at all tempted" (n =2).

Team Norm Questionnaire (SF) Results

The six questions found in Table 3 assessed the team norm for aggression from the players' and coaches' perspective. The two most common responses to each statement are recorded in Table 3.

Aggression statements	Most frequent responses (n)	
	Player	Coach
1. In a close and important game, how many of your teammates would break a rule if it would help your team win?	'A Few' (60) 'Most' (21)	'A Few' (5)
2. In a close and important game, how many of your team-mates would try to injure an opponent if it would help your team win?	'None' (90) 'A Few' (33)	'None' (5) 'A Few' (2)
3. In your opinion, would your coach want you to break a rule if it would help your team win a close and important game?	'No' (60) 'Probably Not' (43)	'No' (5)
4. In your opinion, would your coach want you to injure an opponent if it would help your team win a close and important game?	No' (98) 'Probably Not' (27)	'No' (7)
5. If forced to choose, how many of your teammates would rather cheat than lose?	'None' (66) 'A Few' (48)	'None' (4) 'A Few' (2)
6. If forced to choose, how many of your teammates would rather hurt another player than lose?	'None' (95) 'A Few' (33)	'None' (5) 'A Few' (1)

Table 3. Player and coach self-reported responses of the team norm for aggression

DISCUSSION

The purpose of the present study is to examine amateur football players' and coaches' self-likelihood to aggress and to identify the influence of coaching efficacy beliefs on aggressive behaviour onfield. This included coaches' game strategy efficacy and the team norm for aggression from both a player and coach perspective. The novel finding of this study was that coaches' perception of the team norm for aggression was positively aligned with the players' team norm for aggression. In most cases, this showed a largely negative attitude to actions involving unsporting behaviour – for example, deliberately hurting an opponent, intentionally breaking a rule or cheating rather than losing.

Guivernau and Duda (2002) found that the coach is the most influential 'significant other' in determining players' views about aggression, and that athletes' moral decisions are strongly based on their perceptions of the coach's norms for cheating and aggression. The present study supports this finding, while also suggesting that coaches' personal efficacy beliefs are strongly tied to their athletes' judgements regarding moral behaviour.

A drawback of this finding was the low sample of coaches (n = 7) who participated in the study. Additional coach participants may have strengthened the novel finding relating to coaches' personal efficacy beliefs in relation to the perceived team norm for aggression. Furthermore, examining actual coaching behaviours may have provided a stronger link between coaches' norms for cheating and aggression. For example, coaches may unapologetically teach unfair tactics, positively reinforce athletes who use them, or choose to ignore instances where their team demonstrates aggressive behaviour.

A counter-argument weighing against the novel finding of this study is the use of the hypothetical scenario where athletes may show a higher tendency to foul or aggress in critical game situations. To support this argument, the Advanced Tribunal Report showed a total of 68 offences involving fouls and misconduct in the geographical location where our study was conducted (A division = 42 offences, B division = 9 offences, and C division = 17 offences). The range of offences included unsporting behaviour, secondary cautions, dissent, delaying the restart of the game, violent conduct, encroaching when play is restarted with a free kick, and acting in a manner that showed a lack of respect for the game.

These misconduct statistics cast doubt on the validity of the self-reported questionnaire results, and suggests that players may act with greater levels of aggression in an actual game situation. Some instances represented tactical aggression (for example, delaying the restart of the game, encroaching when play is restarted with a free kick), while others were examples of hostile aggression (for example, dissent, reckless tackles and violent conduct).

The scenario with the highest response rate was statement d (n = 44): "If there were a tie score and this action would be necessary to keep the other team from winning the game." This could be explained by the inherent attraction of instrumental aggression, a reasoned behaviour strategically used to gain advantage (Duda, Olson & Templin, 1991). In this case, cognitive processes are involved and the players learn to use instrumental aggression at the right time and the right place to turn the ratio between cost (e.g., risk of conceding a goal) and profit (e.g., preventing an almost certain goal) to their advantage. As a result, at the upper competition level, instrumental aggression tends to occur most frequently. Conversely, the second most common scenario, illustrated in statement a (n = 38) demonstrates eye-for-an-eye retaliation, a product of hostile aggression, where the primary goal is to inflict injury or psychological harm on another living being based on feelings of anger (Gosling, Rentfrow & Swann, 2003).

The "self-likelihood to aggress" responses stand in contrast to the responses of the team norm for aggression. This could be explained by a willingness to acknowledge one's own self-described response to a situation and avoiding identifying the team norm for aggression and thus placing the team, coach or team-mates at risk (e.g., promoting an overall aggressive perception of the team). Ohbuchi, Suzuki and Takaku (2003) acknowledge that extenuating circumstances may prompt athletes to attribute their reprehensible behaviour to external factors or judge it as justified. Stephens (2000) acknowledges that certain acts of hostile aggression are considered to be emotional responses, usually stemming from provocation, frustration and/or anger.

Limitations

One limitation is the design of the study. Previous studies (Park, 1992; Stephens & Shields, 1997) have focused on unisex youth sport, whereas this study focuses on senior mens' football. This creates a difficulty in comparing and contrasting results from previous studies. Another limitation of our study is the demographic characteristics of the participants. Most of the players (n = 105) and coaches (n = 5) in this study were New Zealand European, a

common bias which is also a limitation of previous studies focusing on athlete aggression (Park, 1992; Stephens & Bredemeier, 1997).

CONCLUSION

The findings of this study replicate and extend previous research examining athletic aggression in senior mens' football. The novel findings of this study were twofold. First, the team norm for aggression was positively reflected by both players and coaches. Second, self-likelihood to aggress was both positively associated with assertive behaviour and negatively associated with hostile aggression. The use of the fouls and misconduct statistics from the geographical location where the study was carried out provided a counter-argument challenging the legitimacy of the results of the self-reported surveys.

Thomas Wallis is a recent graduate of Otago Polytechnic, where he completed a Bachelor of Applied Science (Physical Activity, Health and Wellness). His research focuses on the reasoning behind displays of aggression in football. He drew inspiration for this work from his passion for football and his interest in making the game a safer environment for players, coaches, match officials and spectators alike.

Gary Barclay is a senior lecturer in sport, exercise and health-related psychology at Otago Polytechnic's Institute of Sport and Adventure. He completed a Masters in sport psychology at the University of Otago in 2004 and has since completed graduate studies in psychology through Massey University. In addition to his teaching, Gary has consulted with a variety of individuals and groups in sport and performing arts contexts. He is now enjoying the opportunity to further his research interests in a number of areas including the influence of exercise on mental health and recovery from serious injury.

Richard Humphrey began his academic career at the University of Southampton (UK), where he taught sport studies and sport management and development. Following some postgraduate study at the University of Bristol, he emigrated to New Zealand in 2013 and took up a lecturing position at the Institute of Sport and Adventure at Otago Polytechnic. Richard teaches and supervises undergraduate research in the fields of exercise, health and research methods. His research interests include the therapeutic use of exercise and substance misuse, particularly in the case of people with coexisting mental health issues.

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