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SPORTSMANSHIP ATTITUDES AS A MODERATOR OF THE RELATIONSHIP BETWEEN TEAM IDENTIFICATION AND SPECTATOR AGGRESSION ATTITUDES

Andrew Rudd

Sarah Stokowski

The National Collegiate Athletic Association has long been concerned with the practice of sportsmanship. However, frequent displays of spectator aggression at collegiate sport events demonstrates a grave contradiction. Fans level of team identification is considered a key influence on spectator aggression. Alternatively, sport marketers have found that team identification plays a vital role in fan consumption (e.g., tickets and merchandise). In the interest of reducing aggressive fan behavior without dampening the sport managers' need for highly identified college sports fans, we sought to assess how spectator sportsmanship attitudes might serve to moderate the relationship between team identification and spectator aggression attitudes such that the relationship between team identification and attitude towards aggression would be negligible for individuals scoring high in sportsmanship attitudes. Results showed that sportsmanship attitudes were not a statistically significant moderator of the relationship between team identification and attitudes towards aggression. However, there was a large negative relationship between attitudes towards aggression and spectator sportsmanship attitudes suggesting that fostering sportsmanship could help reduce aggressive fan behavior at college sporting events.

Keywords: brand attributes, social media, crisis communication, nostalgia, sport organizations

Sportsmanship has long been an important value of the National Collegiate Athletic Association (NCAA) for it was concerns about unsportsmanlike conduct that led to its formation (Sportsmanship, n.d.). Currently, the organization promulgates sportsmanship as a core value (Sportsmanship, n.d.) while also establishing the NCAA Committee on Sportsmanship and Ethical Conduct whose purpose is to foster and

promote sportsmanship among athletes, coaches, game officials, administrators, and fans (Committee on Sportsmanship and Ethical Conduct, n.d.).

Despite the NCAA's emphasis on sportsmanship, its practice appears to be lacking among many college sport spectators (Gubar, 2015; Kasabian, 2021; Rudd, 2017). In 2008, former President of the NCAA, Myles Brand, expressed his concern stating: "Campuses increasingly

have student sections in football and basketball that have taken on the role of ensuring a home court advantage with zealous enthusiasm that sometimes moves from rowdy support to over-the-top vulgarity and violent action" (Brand, 2008, n.p.). Although Brand's concerns were over a decade ago, spectator aggression at college athletic events has not shown signs of dissipation. From extensive fieldwork, Gubar (2015) highlighted a variety of verbally abusive fan behavior instigated by student fan groups at college basketball games. More recently, University of Tennessee fans were fined \$250,000 for throwing objects at opposing players and coaches during a football game (Kasabian, 2021).

A psychological construct known as team identification has been considered one of the more significant influences on spectator aggression (Wann & James, 2019; Wann et al., 2017). Team identification has commonly been defined as the extent to which an individual feels psychologically connected to a sports team (Wann, Carlson, et al., 1999; Wann & James, 2019). Spectator aggression, on the other hand, generally "refers to verbal or physical actions grounded in an intent to dominate, control, or do harm to another person" (Coakley, 2007, p.197). Studies have shown that higher levels of team identification are associated with more aggressive spectator behavior (Larkin & Fink, 2019; Toder-Alon et al., 2019; Wann, Carlson, et al., 1999; Wann et al., 2017; Wann et al., 2015). This relationship may be explained by highly identified individuals' self-concepts deriving from their social identity with a particular

team (Branscombe & Wann, 1992; Wann, Carlson, et al., 1999; Wann, 1993). Such levels of identification may lead to acting aggressively towards the opposition following or during the defeat of one's team to restore lost self-esteem that is linked to their social identification (Branscombe & Wann, 1992; Wann, Carlson, et al., 1999; Wann, 1993). Research also suggests that because highly identified individuals' self-esteem is dependent on the success of their team, these individuals have a stronger tendency to become more aroused which may trigger feelings of aggression toward out-group members, e.g., opponents (Branscombe & Wann, 1992).

Despite the potential dark side to team identification, sport marketers have found that team identification plays a substantial role in sport consumer behavior. Specifically, studies indicate that team identification relates positively to purchasing team merchandise, purchase intention (Yoshida et al., 2014), and attending games (Matsuka et al., 2003; Trail et al., 2017). As a result, some sport marketing researchers have suggested that in the interest of increasing ticket sales and sport merchandise purchasing, sport managers should work to increase fans' level of team identification (Kwon & Armstrong, 2002; Trail et al., 2003). As Trail et al. (2003) stated, "Because of the strong role played by identification in spectator loyalty and behavior (Wann & Branscombe, 1993), building high levels of identification is important to sport marketers and managers" (p.15). Similarly, Wakefield and Wann (2006) posited that "both team management per-

sonnel (e.g., professional team general managers and scholastic/collegiate team athletic directors) and communities in general likely desire a large number of individuals who are highly identified with their team" (p.169).

Given the potential for highly identified fans to act aggressively, this begs the question, how can sport managers safely develop team identification among their college sport fan bases? Research findings by Rudd and Gordon (2010) suggested that sport spectators may act aggressively not only because of heightened levels of team identification but also because many sport spectators lack an understanding and valuing of sportsmanship (e.g., fair play and respect for one's opponent; Arnold, 1984; Clifford & Feezell, 1997; Keating, 1964). Thus, although the NCAA promotes the practice of sportsmanship, perhaps they underestimate the number of fans that do not understand or value it and therefore greater sportsmanship development may be an important input variable for sport management personnel wishing to foster highly identified college sport fan bases. In other words, if highly identified fans simultaneously maintain a strong valuing of sportsmanship, then perhaps sport spectator aggression could be decreased significantly.

The purpose of this study then, was to assess the extent to which sportsmanship attitudes moderate the relationship between team identification and attitudes towards spectator aggression among college sports spectators. Notably, this is one of few studies (e.g., Todler-Alon et al., 2019) that has examined how an indi-

vidual variable may decrease or moderate spectator aggression. To date, most studies have seemingly been more interested in the factors that contribute to aggressive spectator behavior, e.g., team identification, dysfunctional fan behavior, frustration-aggression hypothesis, social learning theory, noise, temperature, alcohol, etc. (Simons & Taylor, 1992; Wann, Carlson, et al., 1999; Wann & James, 2019). Furthermore, attempts to curtail spectator aggression have primarily been in the form of behavior modification such as increased security personnel and cameras, anonymous reporting (texting) of unruly fan behavior, and limiting of alcohol sales (Babb & Rich, 2016; Van Milligen, 2015). Although these strategies may provide some deterrence, such tactics are unlikely to foster feelings of respect, fair play, or compassion toward opposing teams, fans, and game officials, which if developed, could minimize the need for increased security and fan ejections, as well as fostering a more wholesome atmosphere for spectators who simply want to enjoy the game.

THEORETICAL FRAMEWORK

Team identification

Wann and colleagues have generally defined team identification as the extent to which an individual feels psychologically connected to a sports team (Wann, Carlson, et al., 1999; Wann & James, 2019). However, in earlier work, Branscombe and Wann (1992) provided a more expansive definition stating that team identification is "the extent to which in-

dividuals perceive themselves as fans of the team, are involved with the team, are concerned with the team's performance, and view the team as a representation of themselves" (p. 1017). Branscombe and Wann (1992) noted further that identifying with a sport team comprises part of a person's larger social identity (Branscombe & Wann, 1992; Dietz-Uhler & Lanter, 2008) which is the extent to which one's self-concept is derived from knowingly belonging to a group (Hogg et al., 1995; Tajfel & Turner, 1979). Additionally, an individual's social identity may be positive or negative depending on how one perceives the value or worth of their group when compared to other relevant out-groups (Hogg et al., 1995; Tajfel & Turner, 1979). Thus, a sense of belongingness to a successful group or team can increase individual self-esteem.

While team identification has predominantly been defined in relationship to social identity theory (Dietz Uhler & Lanter, 2008; Gwinner & Swanson, 2003; Heere & James, 2007; Wann, Carlson, et al., 1999), Lock and Heere (2017) recently suggested that identifying with a team may also be conceived from a role identity perspective. Therefore, rather than deriving self-meaning from group membership (e.g., a fan group for a sports team), identity theorists posit that individuals gain self-understanding through occupying various social roles (e.g., a father, a wife, or a teacher) while interacting with others in relevant counter-roles such as the role of a father in connection with the role of a mother (Hogg et al., 1995; Stets & Burke, 2000). Like social identity theory, role identification also

provides self-esteem enhancement. However, rather than gaining self-esteem through in-group/out-group comparisons, identity theory suggests that self-esteem is enhanced when individuals are socially praised for meeting the normative expectations of a given role (Hogg et al., 1995; Stets & Burke, 2000).

For this study, we chose to conceive of team identification from a social identity perspective given what has been theorized about team identification as a component of one's social identity which can influence aggressive behavior (Branscombe & Wann, 1992; Wann, 1993; Wann, Carlson, et al., 1999). That is, highly identified fans maintain a strong sense of belonging to a group (team) which positively affects self-esteem. Aggressive behavior may ensue when fans feel threatened by a rival team (out-group) that could defeat their team and thus diminish one's self-concept (Branscombe & Wann, 1992; Wann et al., 1999).

Team Identification and Spectator Aggression

It has been theorized that individuals identify with sports teams to maintain positive social identity and enhance self-esteem (Branscombe & Wann, 1992; Wann, 1993; Wann, Carlson, et al., 1999). Further, highly identified fans are more likely than low identified fans to act aggressively towards the opposition or game officials in response to a threatened self-concept that is dependent upon the success of their team (Branscombe & Wann, 1992; Wann, Carlson, et al., 1999). In support, numerous studies have

shown a positive relationship between team identification and spectator aggression. In earlier work, Wann, Carlson et al. (1999) found that highly identified fans maintained higher levels of hostile and instrumental aggression towards games officials and the opposition. Concurrently, Wann, Peterson et al. (1999) observed that highly identified fans were more likely to support injuring an opposing player or coach of a rival team if done anonymously. Also, a study by Rocca and Vogel-Bauer (1999) showed that highly identified fans were more supportive towards various forms of verbal aggression. More recently, Larkin and Fink (2019) observed positive relationships between team identification and hostile and instrumental aggression as part of a larger study on the moderating role of collective narcissism. Wann et al. (2017) found that team identification was a significant predictor of total aggression (combining target and type) as well as a significant predictor of overall instrumental aggression (combining target) but not hostile aggression. Additionally, research by Wann et al. (2015) showed that team identification was a significant predictor of verbal aggression among youth baseball spectators. Lastly, Toder-Alon et al. (2019) found that team identification was positively related to fans' self-reported aggression as well as positively related to fans' perceptions of appropriateness of physical and verbal aggression. Given the number of previous studies demonstrating a link between team identification and aggression, the following is hypothesized:

Sportsmanship

Sport scholars suggest that practicing sportsmanship is more than merely following rules and fair play (Abad, 2010; Arnold, 1984; Clifford & Feezell, 1997; Keating, 1964; Sessions, 2004). Rather, sportsmanship is something loftier and more noble (Arnold, 1984, Clifford & Feezell, 1997). Arnold (1984), for example, posited that sportsmanship is concerned with fostering an atmosphere of friendliness, cooperation, fellowship, and compassion among players. Opposing players, therefore, do not view one another as enemies where winning and egotism supersede how the game is played. Similarly, Clifford and Feezell (1997) proposed that respect for one's opponent is at the heart of sportsmanship because without opponents, players are bereft of the opportunity to excel and be tested (Clifford & Feezell, 1997). Thus, practicing sportsmanship requires players to view competition as a cooperative experience in which opponents mutually strive to provide one another the opportunity to achieve athletic excellence (Clifford & Feezell, 1997).

Placing sportsmanship in the context of sport spectatorship therefore means that spectators do not view opponents as an enemy or a threat to their social identification. Rather, as suggested by Clifford and Feezell (1997), opponents are respected and valued for the opportunity they bring for a worthy competition. As a result, spectators who practice sportsmanship while highly identified with their team, should not feel compelled to verbally taunt or aggress towards the op-

position or game officials. This idea is commensurate with Dixon's (2001) suggestion that the ideal fan is the "moderate partisan" (p. 154). Such fans maintain strong, passionate support for their teams while also valuing fair play and respect for opponents (Dixon, 2001). In a similar vein, Abad (2010) proposed that practicing sportsmanship should involve a balance between competing to win and acting honorably (i.e., fair play and respect for one's opponents).

Empirically, the authors are not aware of any studies that have examined the relationship between aggression and sportsmanship among sport spectators; however, other forms of empirical support may still be found. A study by Courel-Ibáñez et al. (2019) showed that adolescent boys and girls scoring highest in sportsmanship also elicited high scores on personal and social responsibility as well as experiencing and observing the least amount of violence. Also, Chantal et al. (2005) observed a negative relationship between sportsmanship orientations and reactive aggression among adult French club athletes. Lastly, Perry et al. (2015) found a negative relationship between sportsmanship attitudes and antisocial sport behaviors among a sample of English sport club players. These studies suggest that individuals who orient towards sportsmanship are less inclined to maintain aggressive tendencies. Further, such studies should be applicable to sport spectators. Therefore, the following was hypothesized:

H2a: Sportsmanship attitudes will be a statistically significant and nega-

tive predictor of sport spectator aggression attitudes such that higher levels of sportsmanship attitudes will be associated with lower levels of aggression.

H2b: Sportsmanship attitudes will be a statistically significant moderator of the relationship between team identification and spectator aggression attitudes such that the relationship between team identification and spectator aggression attitudes will be stronger for fans with lower levels of sportsmanship attitudes compared to those with higher levels of sportsmanship attitudes.

METHODS

Participants and Procedure

Through social media websites including Facebook, Twitter, and LinkedIn, the authors are connected to hundreds of individuals with an interest in sport. As a result, these mediums were used to obtain a convenience sample of college sports fans. This demographic was targeted due to our specific interest in spectator aggression in college athletics. A message was sent to all prospective participants that included a written introduction to the study along with a URL link to the electronic questionnaire (consisting of three scales). Specifically, it was explained that participation was anonymous and that one could remove from themselves from the study at any time. A total of 212 respondents (males = 119 and females = 93) chose to participate. The

average age of participants was 33 years old; SD = 14.5). Among the favorite sports to watch, basketball (n =43) and football (n= 144) were the most frequently sports listed. Additional sports included soccer, baseball, lacrosse, gymnastics, swimming, softball, track and field, and tennis. Notably, some participants identified more than one sport. Lastly, 70% indicated they attend college sport competitions “often” or “somewhat often.” For clarification, knowing how frequently participants attended sporting events was important because it relates to one’s team identification (James et al., 2019).

Measures

The questionnaire consisted of three scales to measure team identification, spectator aggression, and spectator sportsmanship. These measures are described below.

Sport Spectator Identification Scale-Revised

The revised version of the Sport Spectator Identification Scale (SSIS-R; James et al., 2019;) was used to measure team identification. The original SSIS contains seven items with an 8-point response scale (Wann & Branscombe, 1993). Pilot studies demonstrated that the SSIS is a reliable and valid measure of team identification, e.g., Cronbach’s alpha = .91 (Wann & Branscombe, 1993). For example, item #1 states: “How important to you is it that the [name of team inserted] wins?” Response options range from 1

(*Not Important*) to 8 (*Very Important*). The original SSIS has since been used to measure team identification in hundreds of studies (as cited in James et al., 2019).

The revised version of the SSIS now contains an initial filter question to prevent non-identified fans from responding while also allowing any individual with even a minimal amount of team identification to respond. Additionally, the response anchors on the lower end of the scale were modified to better reflect the feelings of minimally identified individuals. For example, the lower end anchor for item #1 was changed from *Not Important* to *A Little Important*. The high-end anchors (right side), on the other hand, have remained the same except for item #4 pertaining to how closely identified individuals follow their team through various media outlets. This anchor was changed to *Very Frequently* to reflect the fact that fans with mobile cellular devices can follow their team more than *Almost Every Day* (original version).

Sport Spectator Attitude Scale

The Sport Spectator Attitude Scale (SSAS) was utilized to measure sport spectator aggression (Rudd, 2016). To clarify, the SSAS does not directly measure a person’s aggressive behavior in real time but rather an attitude towards it. Notably, other researchers have used a similar approach to measure spectator aggression (Dimmock & Grove, 2005; Rocca & Vogl-Bauer, 1999). In addition, a review of attitude and behavior studies by Schulman and Johnson (1976) found that a person’s attitude can be a reason-

able predictor of related behavior (Schuman & Johnson, 1976). Further, the relationship between attitude and behavior is increased when the specific behaviors of interest correspond closely to the items on the attitudinal measure which characterizes the SSAS (Schulman & Johnson, 1976).

The SSAS was originally comprised of 10 statements that reflect various forms of spectator aggression. Responses are given on a four-point Likert-type scale. For example, one item states: "Heckling the opposing players is fair because the rival fans will do the same thing when my team is visiting at their arena/stadium." Response options include agree, tend to agree, tend to disagree, and disagree.

The SSAS has shown to be a reliable and valid measure of attitudes towards

spectator aggression (Rudd, 2016). Through pilot testing, the internal consistency reliability was Cronbach's alpha = .88, suggesting strong item homogeneity and the measurement of a single construct (Johnson & Christen, 2012; Nunnally, 1978). Concurrently, results from factor analysis with principal axis factoring and orthogonal rotation showed high item loadings (ranging from .57 to .84) on a single factor except for two items (Rudd, 2016). These two items were removed for the current study. In addition, there were two more (items #5 and #8) from this study's analysis that demonstrated poor item discrimination (see Table 1). Thus, the SSAS consisted of six items (all pertaining to verbal aggression) for the main regression analysis (Cronbach's alpha = .86).

Table 1
Frequency Distribution of Responses to the Sport Spectator Attitude Scale (with Eight Items)

Question	Agree	Tend to Agree	Tend to Disagree	Disagree
Q1. Heckling the opposing players is fair...	15.0%	34.7%	29.6%	20.7%
Q2. Yelling at the referee or umpire...	15.5%	39.0%	28.2%	17.4%
Q3. It is my duty to get in opposing players' heads...	7.0%	24.9%	31.5%	36.6%
Q4. It is okay to ridicule the rival team...	9.4%	21.1%	34.3%	35.2%
Q5. Obtaining personal information (e.g., player's girlfriend...	4.2%	9.9%	21.1%	64.8%
Q6. It is okay to ridicule the coach of the rival team...	6.1%	19.7%	32.9%	41.3%
Q7. Holding up distracting signs or posters...	16.9%	34.7%	25.8%	22.5%
Q8. Chanting obscenities at rival team...	4.2%	12.7%	22.1%	61.1%

Note. Items #5 and #8 were removed for the regression analysis due to poor item discrimination which can be seen by the large percentage of responses that were "disagree" or "tend to disagree."

Sport Spectator Sportsmanship Scale

Thus far, the measurement of sportsmanship has been limited to sport participants (Perry et al., 2014; Vallerand et al., 1997; Yukhymenko-Lescroart, 2016). For example, Vallerand et al. (1997) developed the Multidimensional Sportspersonship Orientations Scale which measures five dimensions (respect for rules and officials, social conventions, respect and concern for opponents, full commitment to one's sport, and refraining from negative actions) of sportspersonship among athletes. Similarly, Perry et al. (2014) developed a two-dimensional measure of athlete sportspersonship: compliant and principled. The former dimension includes aspects such as agreeing with game officials, following rules, and not bending rules whereas the latter involves refraining from injuring opponents and doing things for the good of the game. Lastly, Yukhymenko-Lescroart (2016) developed a scale that measures three dimensions of ethical and unethical behavior towards opponents which includes sportsmanship, gamesmanship, and instrumental aggression. The sportsmanship subscale contains items involving behaviors such as congratulating opponents, enjoying competing, and respecting opponents.

Given the lack of existing measures of sportsmanship within the context of sport spectators, The Sport Spectator Sportsmanship Scale (SSSS) was developed for the current study. Similar to the SSAS, the SSSS does not measure actual behavior but rather a person's attitude towards sportsmanship behaviors or

anti-sportsmanship behaviors. Initially, the scale contained 14 items with a four-point Likert-type scale (agree, tend to agree, tend to disagree, and disagree). Scale items were developed based on sportsmanship literature (Arnold, 1984; Clifford & Feezell, 1997; Fraleigh, 1982; Rudd & Gordon, 2010; Vallerand et al., 1997). Following item development, three sportsmanship scholars were asked to review items for content validity. The expert reviewers concurred that the items accurately reflected examples of spectator sportsmanship. For example, one item states: "I want the opponent to play well so that my team will have good competition."

To further test the reliability and validity of the scale, a pilot study was conducted with a sample of 127 college sports fans. An internal reliability analysis yielded a Cronbach's alpha = .84 with 14 items, suggesting an acceptable level of item homogeneity (Johnson & Christensen, 2012; Nunnally, 1978). However, an exploratory factor analysis (with principal axis factoring and orthogonal rotation) suggested two meaningful factors. The first factor showed strong item loadings (higher than .30; Thorndike, 1997) on seven items relating to what could be considered as morally idealistic notions of sportsmanship such as wanting one's opponent to play well, believing that a good game is more important than winning, and refraining from intimidation tactics (see Table 2). This factor is in line with what sportsmanship scholars have espoused concerning respect for one's opponent, the desire for good competi-

Table 2
Results to Factor Analysis for the Sport Spectator Sportsmanship Scale (Pilot Study)

Scale Items	Factor 1	Factor 2
Q1. I think it is wrong to yell at or harass the opponent...	.76	.06
Q2. I think it is wrong to use signs or other objects...	.72	-.04
Q3. I want the opponent to play well...	.55	.05
Q4. I believe a good game is more important...	.52	.06
Q5. I like to see both teams shake hands...	.11	.53
Q6. I do not view the opposing team as the enemy.	.35	.15
Q7. I want the players on my team to follow the rules...	.16	.68
Q8. I see nothing wrong with applauding good play from the opponent.	.15	.09
Q9. It is wrong to yell at game officials...	.76	.18
Q10. I do not want my team to use intimidation tactics...	.68	.24
Q11. I do not like it when other fans around me are yelling...	.82	.10
Q12. I do not want to see any of my team's opponents suffer injury...	.00	.56
Q13. I do not want the players on my team to intentionally deceive officials.	.21	.47
Q14. I like to see the players on my team help an injured opponent.	-.12	.56

Note. Factor loadings .30 or higher are seen in bold.

tion, and fair play (Abad, 2010; Clifford & Feezell, 1997; Dixon, 2001).

Conversely, the second factor possessed high loadings on five items that may represent a more basic and traditional level of sportsmanship such as shaking hands after the game, wanting players to follow rules and compete fairly, and helping an injured opponent (see Table 2). Unlike items (with high loadings) in the first factor, a frequency distribution analysis showed that the second factor items (with high loadings) produced little variability or discrimination between those who possess higher versus lower levels of sportsmanship. Therefore, this second factor was not

considered a useful measure of sportsmanship. It was therefore decided to retain seven of the original 14 items based on the first factor. These seven items also demonstrated strong internal consistency (Cronbach's alpha = .87).

Analysis

With the use of Statistical Package for Social Sciences (SPSS) version 27, hierarchical multiple regression was employed to analyze sportsmanship attitudes as a moderator of the relationship between team identification and spectator aggression attitudes. In general, multiple regression analysis is appropriate when there is an interest in understanding the

degree to which multiple independent variables predict the value of a dependent variable (Johnson & Christensen, 2012). For this study, hierarchical multiple regression was used because it allows the researcher to determine if adding more predictor variables in a sequential fashion explains additional variance in the dependent variable (Aron & Aron, 2003). Applied to our study, assessing if sportsmanship attitudes moderate the relationship between team identification and spectator aggression attitudes required a two-step hierarchical analysis in which model 1 tested team identification as a predictor of spectator aggression attitudes while model 2 tested sportsmanship attitudes as a moderating influence on the relationship between team identification and spectator aggression attitudes.

Prior to the regression analysis, key statistical assumptions were analyzed including normality of the data, multicollinearity (high correlation among independent variables, and homoscedasticity (consistent amount of error variance at each level of the independent variables). Measures of skewness and kurtosis indicated that the data was within an acceptable range of normality (i.e., within -1 to +1). Additionally, the variance inflation factor was less than 10 for the independent variables (team identification and sportsmanship) suggesting low concern for multicollinearity. Concurrently, a scatterplot with the standardized predicted values on the X axis and the standardized residual values on the Y axis confirmed a reasonable level of homoscedasticity.

RESULTS

In addition to the regression analysis, descriptive statistics including means, standard deviations, and correlations were generated and examined (see Table 3). It was hypothesized for H1 that team identification would be a positive and statistically significant predictor of spectator aggression attitudes. Results from the regression analysis (see Table 4) did not support the first hypothesis ($\beta = .06$, $p > .05$). However, the bivariate correlation between team identification and spectator aggression attitudes was positive and statistically significant ($r = .23$, $p < .01$). Thus, although H1 was not supported on a predictive level, other statistical evidence did support a relationship between team identification and aggression attitudes.

For H2, it was hypothesized (H2a) that sportsmanship attitudes would be a statistically significant and negative predictor of sport spectator aggression attitudes such that higher levels of sportsmanship would be associated with lower levels of aggression attitudes. The results supported this hypothesis ($\beta = -.67$, $p < .05$). Lastly, it was hypothesized (H2b) that sportsmanship attitudes would moderate the relationship between team identification and spectator aggression attitudes such that the relationship between team identification and spectator aggression attitudes would be stronger at lower levels of sportsmanship attitudes compared to higher levels of sportsmanship attitudes. However, results showed an R^2 change = .000, $p > .05$ when adding the interaction term

Table 3
Means, Standard Deviations, and Correlations among Variables

Variables	M	SD	1	2	3	Cronbach's α
1. Team ID	41.21	12.53	-	-.25**	.23**	.92
2. Sportsmanship	18.61	4.50	-.25**	-	-.68**	.81
3. Aggression	13.39	4.44	.23**	-.68**	-	.86

Note. Correlation is significant at ** $p \leq .01$ level

Table 4
Results to Moderated Hierarchical Regression Analysis

Model	Variable	Unstandardized Coefficients	SE	Standardized Coefficients	t	Sig	95% CI for Unstandardized Coefficients
1	Constant	24.80	1.37		18.07	.000	[22.0, 27.5]
	Teamid	.02	.01	.06	1.22	.22	[-.01, .05]
	Sportsmanship	-.66	.05	-.67	-12.98	.000	[-.76, -.56]
2	Constant	25.73	3.16		8.14	.000	[19.5, 31.9]
	Teamid	.001	.069	.002	.01	.993	[-.13, .13]
	Sportsmanship	-.710	.154	-.720	-4.60	.000	[-1.01, -.40]
	Moderator	.001	.003	.070	.32	.743	[-.00, .01]

Note. Statistical significance at * $p \leq .05$

Table 5
Regression Model Summary

Model	R	R ²	Adjusted R ²	SE	R ² Change	F Change	df1	df2	Sig F Change
1	.69	.47	.47	3.23	.47	95.03	2	209	.000
2	.69	.47	.46	3.23	.000	.11	1	208	.74

Note. Statistical significance at * $p \leq .05$

(sportsmanship attitudes x team identification) to the regression model (see Table 5). Therefore, there was no additional variance explained in spectator aggression attitude scores when adding sportsmanship attitudes as a moderating variable. Thus, the analysis did not provide support of sportsmanship attitudes moderating the relationship between team identification and spectator aggression attitudes.

DISCUSSION

To date, most studies have focused on the factors that contribute to spectator aggression (Branscomb & Wann, 1992; Larkin & Fink, 2019; Wann & James, 2019; Wakefield & Wann, 2006; Wann et al., 2017). In the interest of addressing how to curtail aggressive sport spectator behavior at college athletics sports events, the aim of this study was to assess how sportsmanship attitudes moderate the relationship between team identification and spectator aggression attitudes such that the relationship between team identification and spectator aggression attitudes would significantly decrease for individuals with higher levels of sportsmanship attitudes. Results from the regression analysis were not supportive of such a relationship. However, there was a strong negative relationship between sportsmanship attitudes and spectator aggression attitudes. Therefore, although sportsmanship attitudes did not moderate the relationship between team identification and spectator aggression attitudes, there is evidence to suggest that sport spectators' valuing of

sportsmanship decreases the likelihood of acting aggressively at sport events. This finding has important implications for how to reduce aggressive spectator behavior. More details on the theoretical and practical implications of our findings are discussed below.

Theoretical Implications

In HI, it was hypothesized that team identification would be a positive and significant predictor of spectator aggression attitudes. However, results from the regression analysis were not supportive. Team identification's lack of predictive power in the regression model is puzzling given the number of studies that have found a statistically significant relationship between team identification and aggression (Larkin & Fink, 2019; Toder-Alon et al., 2019; Wann et al., 2017; Wann et al., 2015). Specific to studies using regression analysis, Wann et al. (2017) found team identification was a statistically significant predictor of total aggression ($\beta = .23$) while Wann et al. (2015) showed team identification was a statistically significant predictor of verbal aggression ($\beta = .20$) when included with additional predictor variables (i.e., gender, vengeance, anger, and hostility). Larkin and Fink's study (2019) found team identification was statistically significantly related to both hostile ($\beta = .35$) and instrumental aggression ($\beta = .31$) in a structural equation model. Finally, Toder-Alon et al. (2019) found that team identification was positively related to fans' self-reported aggression ($\beta = .23$) as well as positively related to fans' perceptions of ap-

propriateness of physical ($\beta = .12$) and verbal aggression ($\beta = .27$). In contrast, our study showed that team identification's predictive relationship with spectator aggression attitudes was much lower ($\beta = .06$).

One possible explanation for the small relationship between team identification and spectator aggression attitudes could relate to the predictive and explanatory power of sportsmanship attitudes as a predictor within the regression model. As mentioned, the predictive relationship between sportsmanship attitudes and spectator aggression attitudes was ($\beta = -.67$) while explaining 42% of the variance in spectator aggression scores. Thus, although there was a statistically significant correlation between team identification and spectator aggression attitudes ($r = .23$, $p < .01$), team identification's predictive role in the regression model was reduced by sportsmanship attitudes' large relationship to spectator aggression attitudes. This may suggest that team identification's significance as a predictor of aggression will vary depending on other predictor variables included in the regression model.

The way in which spectator aggression is measured may also play a role in the variable findings, i.e., team identification's relationship to aggression. Our study employed the SSAS which measures attitudes towards various forms of verbal spectator aggression. A variety of other aggression measures have been used. Studies by Larkin & Fink (2019), Wann, Carlson, et al. (1999), and Wann et al. (2017) used the Hostile and Instrumental Aggression in Sport Ques-

tionnaire which measures the extent fans have engaged in verbal aggression at sporting events. Alternatively, Wann et al (2015) employed the Spectator Aggression Questionnaire which measures the likelihood of engaging in aggressive behavior at a sporting event. Rocca and Vogel-Bauer (1999) utilized both the Verbal Aggression Scale (VAS) and Sports Identification Behavior Scale (SIBS). The latter measures the degree to which spectators find various types of spectator communication appropriate or inappropriate. Lastly, Toder-Alon et al. used an abbreviated form of the SIBS as well as a self-reported measure of aggressive behavior when watching sport events. While all these measures share similarities such as fans verbally abusing targets (e.g., opponents and officials), it seems reasonable that different measures of aggression could have some level of impact on results, if even only negligible.

Consistent with other studies (Larkin & Fink, 2019; Rocca and Vogel-Bauer, 1999; Toder-Alon, 2019; Wann, Peterson, et al., 1999; Wann et al., 2017; Wann et al., 2015), we also found a correlation between team identification and spectator aggression attitudes ($r = .23$, $p < .01$). However, the practical significance of this relationship should be considered. Correlations below .30 are typically considered to represent a low relationship between variables (Cohen, 1988). More specifically, a correlation of .23 explains only 5% of the variance in the relationship between team identification and spectator aggression attitudes in our study. Additionally, one can see from the scatter plot in figure 1 that while there

are numerous individuals that scored both high on team identification and spectator aggression attitudes, there are also many highly identified individuals who scored low on aggression. Such variability is not isolated to our study. Other studies have found similar correlations between team identification and aggression ranging from low to moderate ($r = .03$ to $r = .44$; Dimmock & Grove, 2005; Larkin & Fink, 2019; Toder-Alon, 2019; Wann, Peterson et al.1999; Wann et al., 2017; Wann et al., 2015). These findings suggest that while there are highly identified fans that demonstrate aggressive tendencies, it is not the case for all of them. Therefore, it cannot be assumed that team identification will always lead to spectator aggression.

Among those highly identified individuals that act aggressively (or show support for aggressive spectator behavior), there is research to suggest that perhaps some of these fans have additional psychological characteristics such as fan dysfunction (Wakefield & Wann, 2006; Wann et al., 2017) and collective narcissism (Larkin & Fink, 2019). However, results from these studies do not indicate if one must not only be highly identified but also dysfunctional or collectively narcissistic to engage in spectator aggression. Rather, such studies suggest that there is a relationship between aggression and dysfunctional fandom and that there may be a stronger relationship between team identification and aggression among those with higher levels of collective narcissism (Larkin & Fink, 2019; Wakefield & Wann, 2006; Wann et al., 2017). It may also be that there are highly

identified fans that act aggressively for reasons unrelated to being dysfunctional or collectively narcissistic. Our study suggests that one such variable may include the lack of spectator sportsmanship.

As expected, there was a strong negative and statistically significant relationship between sportsmanship attitudes and spectator aggression attitudes. This was evidenced in the regression analysis and bivariate correlation. These results are consistent with what would be expected among those who value sportsmanship. That is, maintaining respect, friendliness, and compassion towards opponents is not compatible with verbally harassing or ridiculing one's opponent (Arnold, 1984; Clifford and Feezell, 1997). However, it was also expected that valuing sportsmanship would moderate the relationship between team identification and spectator aggression attitudes such that the relationship between team identification and spectator aggression attitudes would be stronger for fans with lower levels of sportsmanship attitudes compared to those with higher levels of sportsmanship attitudes. Surprisingly, sportsmanship attitudes did not have a moderating effect. These results may be due to the small and insignificant relationship between team identification and spectator aggression attitudes in the regression analysis. In other words, there was not much of a relationship to moderate. Despite sportsmanship attitudes' insignificance as a moderator, the strong negative relationship between sportsmanship attitudes and spectator aggression attitudes leads us to believe that

sportsmanship can play an important role in decreasing fan aggression. We discuss more about sportsmanship in the following section.

Practical Implications

Team identification has been considered a major contributor to spectator aggression. However, studies including ours, have found low to moderate correlations between team identification and aggression (Larkin & Fink, 2019; Toder-Alon, 2019; Wann & James, 2019; Wann, Petersen, et al., 1999; Wann et al., 2017; Wann et al., 2015), suggesting that while there are a percentage of highly identified fans prone to aggressive behavior, many may not. Nonetheless, the occurrence of aggressive fan behavior at college athletics sporting events should be enough to warrant concern (Brand, 2008; Gubar, 2015; Hill, 2021; Kasabian, 2021).

To curtail fan aggression, one thought is to reduce fans' levels of team identification since it likely influences aggression among a certain population of fans. However, sport marketers have found team identification positively influences fan consumption such as attending games and purchasing team merchandise (Kwon & Armstrong, 2002; Matsuka et al., 2003; Trail et al., 2017). Consequently, it is unlikely sport managers would support a reduction in team identification. As an alternative, we proposed that perhaps fans' valuing of sportsmanship can moderate the relationship between team identification and spectator aggression at sporting events. This would mean that fans could be highly identified but also supporters of sports-

manship and thus devoid of acting with aggression or violence. Nixon (2001) has referred to this type of fan as the "moderate partisan."

Although sportsmanship was not found to moderate the relationship between team identification and spectator aggression attitudes, there was a strong negative relationship between sportsmanship and aggression, suggesting that fans with high levels of sportsmanship are less likely to engage in aggressive behavior. This result lends strong support for the importance of promoting sportsmanship at college athletics sporting events as well as providing sportsmanship education. As mentioned earlier, aggressive fan behavior has primarily been addressed through behavior modification practices such as increased security personnel and cameras, anonymous reporting of inappropriate fan behavior, fan code of conduct, limiting of alcohol sales, and making changes to the stadium environment (Babb & Rich, 2016; Van Milligen, 2015). While these measures may be helpful, such strategies do not instill a true valuing and practicing of sportsmanship which we argue could potentially reduce the need for various deterrence strategies.

To foster spectator sportsmanship, we suggest the adoption of sportsmanship education. Research has shown that guided moral discussion can stimulate moral conflict and perspective taking which may lead to increased levels of moral reasoning (Blatt & Kohlberg, 1975; Power, Higgins, & Kohlberg, 1989; Rest, 1986). This same approach may be integrated into sportsmanship education

whereby participants engage in directed discussion over thought provoking ideas concerning sportsmanship vis-à-vis status quo conceptions of competition, e.g., winning at all costs versus competing fairly and respecting one's opponent. Further, through these discussions, individuals hear one another's thoughts which plays a significant role in altering a person's moral thinking, particularly when one is introduced to reasoning that is more advanced than one's own (Blatt & Kohlberg, 1975; Kohlberg, 1981). Put in the context of sportsmanship education, as individuals are exposed to more sophisticated, alternative thinking concerning sportsmanship, a person may transition from thinking it is acceptable to ridicule opposing players to believing that such behavior is poor sportsmanship and hurtful to others.

Implementing sportsmanship education may be challenging in terms of how to go about requiring or attracting fans to voluntarily participate. Nonetheless, we offer a few suggestions for consideration. At the intercollegiate level, universities and colleges could require a sportsmanship education class for all incoming freshmen. The duration could be a half semester or shorter as studies on moral education have shown that programs are most effective in the range of 4-12 weeks (Rest, 1986). College athletic departments could also offer sportsmanship education courses to their fanbases which could be incentivized by offering discounted tickets to athletic events. The provision of sportsmanship education would not necessarily reach all attending spectators, but it would be a start to cul-

tivating a stronger sportsmanship environment at sporting events.

In addition to sportsmanship education, other strategies may be implemented to promote spectator sportsmanship. First, sportsmanship messages from players and coaches can be broadcasted on stadium and arena jumbotrons before games. According to social learning theory, individuals learn new forms of thinking and behavior by observing others that are deemed to be role models due to their status and power (Bandura, 1986). Therefore, hearing messages from star players and coaches could have an impact on fans' valuing and practicing of sportsmanship. Second, signage around stadiums and arenas containing sportsmanship statements, signals to spectators the types of values and behaviors that are expected. Third, teams could highlight players that demonstrate sportsmanship, i.e., "sportsmanship player of the week" to model sportsmanship to fans. Fourth, athletic departments could also give away tee-shirts that have sportsmanship slogans combined with the team logo. Fifth, radio shows that cover their local teams could dedicate time to discuss sportsmanship with players and coaches; thus transmitting the importance of sportsmanship to listening fans.

Limitations and Future Research

Although great care was taken to conduct a reliable and valid study, there are still limitations to be acknowledged. First, research participants were not randomly sampled from the population of

interest (i.e., college sports fans) which is considered the most accurate means of obtaining a representative sample (Johnson & Christensen, 2012). Instead, participants were comprised of a convenience sample, i.e., individuals that were obtainable to the researchers. However, as noted previously, 70% of the participants indicated they attend college sport competitions "often" or "somewhat often" which helps validate the representativeness of the study's sample, i.e., college sports fans.

Second, participants actual behavior at a sport event was not measured but rather their attitudes towards various types of aggression and sportsmanship behaviors. It is possible that some sports fans' responses to statements concerning aggression and sportsmanship are different from their real-life behaviors at sport events. Third, while most participants identified basketball ($n = 43$) and football ($n = 144$) as their favorite sports to watch, there were an additional 35 participants that listed other sports as their favorites including soccer, baseball, lacrosse, gymnastics, swimming, softball, track and field, and tennis. It is possible that some of the variability in sports watched impacted the results. Wann et al. (2000) found that fans who view sports containing more aggression reported more aggressive behavior than do fans who view less aggressive sports. Thus, participants who identified nonviolent sports as their favorites to watch may be less aggressive but consider themselves highly identified.

For future research, it would be interesting to determine if certain types of

highly identified fans are more likely to engage in aggressive behavior as well as more extreme forms of it. Studies have suggested that "dysfunctional fans" and "collective narcissists" are subtypes of highly identified fans that more like to act aggressively (Larkin & Fink, 2019; Wakefield & Wann, 2006). Possessing a clearer understanding of which fans are more likely to engage in aggression could assist facility and risk managers in developing and implementing preventative strategies (Larkin & Fink, 2019; Madensen, 2014).

In addition, an intervention study should be conducted to assess the efficacy of sportsmanship education for reducing fan aggression. Among what are considered strong experimental designs, a pretest-posttest control group design could be utilized in which participants (highly identified fans) are randomly assigned to the treatment (sportsmanship education) or control group (Johnson & Christensen, 2012). Both groups' spectator aggression levels would be pretested and then posted following the intervention to determine treatment effects.

Lastly, research concerning team identification and aggression has primarily been quantitative. Qualitative studies should be conducted to obtain a deeper understanding of why some highly identified fans act aggressively while others do not. For example, in-depth interviews with highly identified fans could be conducted in which participants are asked to describe their feelings towards spectator aggression and sportsmanship as well as the types of situations that may stimulate aggressive behaviors. This information

could be used by sport managers to develop methods for reducing fan aggression and promoting sportsmanship.

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