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Findings in Sport, Hospitality, Entertainment, and Event Management

Empirical – Sport

The Relationship between Sport Fan Dysfunction and Trait Aggression

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Abstract

The current investigation was designed to examine the relationships among sport fandom, dysfunctional sport fandom, and trait aggression. Although past research had yielded inconsistent results (Wann et al., 1999, 2002), based on more recent research (Castleman et al., 2020) it was hypothesized that fan dysfunction would be a significant positive predictor of trait aggression while sport fandom would be a significant negative predictor of trait aggression. Additionally, we predicated that fan dysfunction would mediate the relationship between sport fandom and trait aggression. Analyses supported each hypothesis, indicating that once one takes into account the dysfunctional component of sport fandom, fandom predicts lower levels of aggression.

Keywords: Sport Fan; Fan Dysfunction; Trait Aggression; Fandom; Fan Behavior

Sport scholars have frequently investigated the aggressive actions of sport fans (see Wann & James, 2019). Some of this research was designed to examine the potential relationship between sport fandom and trait aggression (i.e., long term, enduring levels of aggression). Interestingly, this work has found inconsistent results, with some studies finding that fandom and aggression are positively related, while other work has failed to find this relationship (e.g., Wann et al., 1999, 2002).

New research by Castleman et al. (2020) may shed light on the inconsistent results. Specifically, in their examination of sport fans' perceptions of the appropriateness of sport fan verbal aggression, these authors included the construct of fan dysfunction. Dysfunctional fans frequently complain, are highly confrontational, and exhibit various behaviors that are less than flattering. Indeed, an ever-growing body of literature indicates that fan dysfunction is associated with numerous problematic behaviors and personality traits (Wann & James, 2019).

One of the first empirical investigations of dysfunctional fans was conducted by Wakefield and Wann (2006) in their attempt to develop a measurement tool to assess this trait. These authors constructed a psychometrically sound five-item instrument to measure dysfunctional fandom. Using this scale, they found that, relative to fans low in dysfunction, those high in this characteristic were particularly likely to verbally abuse officials, consume alcohol at games, and call sport talk radio programs (presumably to voice their complaints and displeasure).

Subsequent research endeavors have added to the profile of dysfunctional fans. For instance, Courtney and Wann (2010) found that these individuals were particularly likely to have bullied others as a child. These hostile actions seem to continue into adulthood, as indicated by the inappropriate responses dysfunctional fans often exhibit when watching their own child participate in youth sports (Partridge & Wann, 2015). Dysfunctional fans are highly assertive (Wann & Ostrander, 2017), view sport and war as similar (Wann & Goetze, 2017), and believe that sport fan aggression is acceptable (Donahue & Wann, 2009). Additionally, more recent research (DeRossett et al., in press) finds that these individuals score high in the dark triad personality traits (i.e., Narcissism, Machiavellianism, and psychopathy, see Paulhus & Williams, 2002), have a difficult time taking the perspective of others, and exhibit restrictive emotionality (the belief that softer emotions like sadness or grief should be suppressed, see Chaplin & Aldao, 2013).

Castleman and his colleagues (2020) extended our understanding of fan dysfunction by examining the interrelationships among dysfunction, team identification (one's psychological connection to a team, see Wann & James, 2019), and sport fan aggression. Specifically, they examined the extent to which team identification and fan dysfunction predicted beliefs in the appropriateness of verbal aggression among sport fans. Additionally, they examined the extent to which fan dysfunction mediated the relationship between team identification and perceptions of appropriateness. Castleman et al. found that both team identification and fan dysfunction were significant, unique predictors of perceptions of the appropriateness of verbal sport fan aggression, but the directionality of the effects was different. That is, simultaneous regression analyses indicated that although fan dysfunction was positively associated with perceptions of appropriateness, team identification was, in fact, negatively related. Furthermore, with respect to mediation, team identification predicted fan dysfunction which, in turn, predicted beliefs about the appropriateness of verbally aggressive behaviors among sport fans. Additionally, the direct path between team identification and appropriateness of aggression (e.g., absent dysfunction) was significant and negative, indicating that when one removes from dysfunctional aspect of team identification, higher levels of identification are actually associated with lower levels of perceptions of the appropriateness of fan aggression.

The purpose of the current investigation was to extend the work previously cited, and in particular the research by Castleman et al. (2020), by examining the relationships among sport fandom, fan dysfunction, and trait aggression. Given that sport fandom and team identification are highly correlated (Wann, 2002), it seemed likely that results similar to those reported by Castleman et al. would also be found for sport fandom. Thus, using the findings reported by Castleman and his colleagues as the basis for predictions, we hypothesized that:

Hypothesis 1: Fan dysfunction would be a significant positive predictor of trait aggression.

Hypothesis 2: Sport fandom would be a significant negative predictor of trait aggression.

Hypothesis 3: Fan dysfunction would statistically mediate the relationship between sport fandom and trait aggression.


 The logo for FinsHEEM is displayed in a stylized, blue, italicized font. The letters 'F', 'S', 'H', and 'E' are significantly larger and more prominent than the other letters, creating a dynamic and energetic visual effect.

Method

Participants

The sample consisted of 269 students attending a mid-southern university (105 male; 164 female). Participants had a mean age of 20.93 years ($SD = 3.04$).

Materials and Procedure

Following IRB approval, participants were tested in group settings in university classrooms. Upon arriving and providing their consent, participants received a questionnaire packet with four sections. The first section assessed age and gender. The next portion contained the five-item Sport Fandom Questionnaire (SFQ; Wann, 2002) to assess the extent to which the participants identified with the role of sport fan. Response options ranged from 1 (*strongly disagree*) to 8 (*strongly agree*). Therefore, higher numbers corresponded with higher levels of fandom. A sample item from the SFQ reads, "I consider myself to be a sport fan."

The third section contained the Dysfunctional Fandom Questionnaire (DFQ; Wakefield & Wann, 2006). This scale consists of five items assessing levels of dysfunctional sport fandom, with response options ranging from 1 (*inaccurate as a description of me*) to 10 (*accurate as a description of me*). Higher scores indicate greater levels of fan dysfunction. A sample item from this scale reads, "I have had confrontations with others at sporting events when I voiced my opinion."

The final section contained the Buss-Perry Aggression Questionnaire (BPAQ; Buss & Perry, 1992). This scale uses 29 items to assess four different forms of aggression (physical aggression – nine items; verbal aggression – five items; anger – seven items; and hostility – eight items). Response options range from 1 (*low aggression*) to 5 (*high aggression*) and, thus, higher numbers indicate greater levels of the various forms of aggression. Additionally, all 29 items were summed to form a total aggression score.

After completing the packet, respondents were thanked for their participation, debriefed, and excused from the session (sessions lasted approximately 10 minutes).

Results

Preliminary Analyses

Items comprising the SFQ and DFQ were combined to form indices of both. Scores on the four BDAQ subscales and the BDAQ total scale were summed and then divided by the number of items on each scale to arrive at a uniform number for each. Means, standard deviations, and Cronbach's alphas appear in Table 1.

Table 1

Means, Standard Deviations, and Reliability Alphas (Cronbach).

Measure	M	SD	Alpha
Sport fandom	21.59	11.50	.96
Dysfunctional fandom	18.90	11.51	.90
Physical aggression	2.32	0.80	.83
Verbal aggression	2.52	0.83	.79
Anger	2.25	0.77	.80
Hostility	2.42	0.85	.82
Total aggression	2.40	0.61	.89

Tests of Hypotheses

Hypothesis 1 (fan dysfunction would be a significant positive predictor of trait aggression) and Hypothesis 2 (sport fandom would be a significant negative predictor of trait aggression) were tested via a series of regression analyses. Specifically, fan dysfunction and sport fandom were entered as predictors of the various forms of trait aggression (i.e., BDAQ subscales), as well as the total trait aggression score (correlations among the variables appear in Table 2 on page 6). In each case, the pattern of effects was highly consistent (see Table 3 for regression statistics on page 6). Specifically, in each analysis, the combined effect of the predictor variables was significant, fan dysfunction accounted for a significant portion of unique positive variance in physical aggression, and sport fandom accounted for a significant proportion of unique negative variance. Thus, hypotheses 1 and 2 were supported.

In an attempt to discover if this relationship replicated Castleman and colleague's findings (2020), a mediation analysis was conducted on the total aggression score. Specifically, we tested the extent to which dysfunction mediated the relationship between fandom and total aggression. The PROCESS macro for SPSS 27 was used to test the model (Model 4, Hayes, 2018). Results indicated that the overall model was significant, $F(2, 266) = 14.71$, $MSE = .34$, $p < .001$, $R^2 = .10$. Figure 1 illustrates the mediation model. The bootstrap estimation indicated the indirect effect was significant, $b = .02$, $SE = .004$, 95% CI [.01, .03]. Specifically, fandom was a significant predictor of dysfunction ($b = .75$, $SE = .04$, $p < .001$, 95% CI [.67, .83]), and dysfunction was a significant predictor of aggression, $b = .03$, $SE = .005$, $p < .001$, 95% CI [.02, .03]. The direct effect of fandom, absent the effect of dysfunction, was also significant but in the opposite

direction, $b = -.02$, $SE = .005$ $p < .001$, 95%CI[-.03, -.01]. These results directly replicate the findings of Castleman et al. (2020).

Discussion

Previous research has failed to find a consistent pattern between sport fandom and trait aggression (Wann et al., 1999, 2002). However, these studies had failed to include fan dysfunction, a critical person variable that is linked with sport fan aggression (Courtney & Wann, 2010; Partridge & Wann, 2015; Wann & Ostrander, 2017). Using findings reported by Castleman et al. (2020) to frame our hypotheses, we expected and found that fan dysfunction was a positive predictor of various forms of trait aggressiveness (and the total aggression score) while sport fandom was a negative predictor, and that dysfunction mediated the relationship between sport fandom and total trait aggression.

The patterns of effects reported above suggest that sport scientists, sport marketers and managers, and persons involved with sporting event production need to place sport fan dysfunction at the top of their list of spectator characteristics about which to be concerned. This is especially true given that the problematic actions of dysfunctional fans can negatively affect the sport experience of nearby fans, leading to a reduction in their desire to attend future events (Kim & Byon, 2020). Exactly how sporting event personnel should be watchful for these individuals is a difficult question to answer. Certainly, teams and leagues cannot ask each attendee to complete a measure assessing fan dysfunction prior to entering an event, as such an undertaking is not feasible. Thus, perhaps the best solution at the present time is to provide event management staff and security with a profile of these persons. For example, individuals could be asked to be mindful of overly assertive fans who drink in excess and appear to have little concern over how their abusive actions negatively impact players or others spectators. With a more critical eye aimed at such persons (and clear protocol for responses in place), perhaps large-scale incidents involving fan aggression can, on occasion, be avoided or reduced.

Conclusion

Sport fan aggression has been a frequent topic of interest for sport scholars for many decades (Wann & James, 2019). In recent years, researchers have examined two sport fan variables as they relate to aggression: sport fandom (i.e., one's level of interest

in sport) and fan dysfunction (i.e., one's tendency to be confrontational as a fan). Extending past work, the current investigation examined the relationships among these variables and trait aggression. As expected, fan dysfunction was significant positive predictor of trait aggression while sport fandom was a significant negative predictor. Also as hypothesized, fan dysfunction mediated the relationship between sport fandom and trait aggression. Thus, it appears as though when the dysfunctional components of one's sport fandom are removed, fandom predicts lower levels of aggression.

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DYSFUNCTION AND AGGRESSION

Table 2
Correlations among the Variables.

	1	2	3	4	5	6	7
Sport fandom (1)	--						
Fan dysfunction (2)	.75**	--					
Physical aggression (3)	.01	.16**	--				
Verbal aggression (4)	.05	.17**	.47**	--			
Anger (5)	-.03	.16**	.50**	.56**	--		
Hostility (6)	-.07	.11*	.23**	.42**	.45**	--	
Total aggression (7)	-.02	.20**	.76**	.77**	.80**	.70**	--

Note: * = $p < .05$; ** = $p < .01$.

Table 3
Regression Equations with Fan Dysfunction and Sport Fandom as Predictors Trait Aggression.

Physical Aggression ($R = .23$; $R^2 = .05$; $F_{2,266} = 7.53$, $p < .001$)

	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>t</i>	<i>sig.</i>
Fan dysfunction	0.025	0.006	0.352	3.88	<.001
Sport fandom	-0.018	0.006	-0.252	-2.78	<.005

Verbal Aggression ($R = .21$; $R^2 = .05$; $F_{2,266} = 6.27$, $p < .005$)

	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>t</i>	<i>sig.</i>
Fan dysfunction	0.023	0.007	0.314	3.45	<.001
Sport fandom	-0.014	0.007	-0.188	-2.06	<.05

Anger ($R = .29$; $R^2 = .08$; $F_{2,266} = 11.72$, $p < .001$)

	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>t</i>	<i>sig.</i>
Fan dysfunction	0.029	0.006	0.430	4.81	<.001
Sport fandom	-0.024	0.006	-0.355	-3.97	<.001

Hostility ($R = .25$; $R^2 = .06$; $F_{2,266} = 8.53$, $p < .001$)

	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>t</i>	<i>sig.</i>
Fan dysfunction	0.026	0.007	0.359	3.97	<.001
Sport fandom	-0.025	0.007	-0.338	-3.73	<.001

Total Aggression ($R = .32$; $R^2 = .10$; $F_{2,266} = 14.71$, $p < .001$)

	<i>B</i>	<i>SE B</i>	<i>Beta</i>	<i>t</i>	<i>sig.</i>
Fan dysfunction	0.025	0.005	0.480	5.42	<.001
Sport fandom	-0.020	0.005	-0.376	-4.25	<.001